

ARIZONA

ALUMNI MAGAZINE | SPRING 2024 | VOLUME 101/2



THE UNIVERSITY
OF ARIZONA

A MILLENNIUM IN THE MAKING

An experimental philosopher begins a 1,000-year photograph to spark imagination today.

By Mikayla Mace Kelley

Jonathon Keats' camera faces west toward Starr Pass. Photo: Chris Richards

On Tumamoc Hill, Tucsonans climb and descend daily. Saguaros grow and die across decades, even centuries. And for the next 1,000 years, the Millennium Camera — installed in late 2023 — will stand sentinel over the city, inviting passersby to ponder the future.

Set beside a mid-hike bench facing west toward Starr Pass, the device was dreamed up by experimental philosopher Jonathon Keats, a research associate in the University of Arizona College of Fine Arts.

For the camera to last so long, it must be simple. Through a pin-sized hole in a thin sheet of 24-karat gold, light slips into a small copper cylinder atop a steel pole. Over 10 centuries, sunlight reflected from the landscape will slowly fade a light-sensitive surface coated in thin layers of rose madder, an oil paint pigment. When people open the camera in 3023, they will encounter a long-exposure image of the land.

"It's easy to imagine that people in 1,000 years could see a version of Tucson that is far worse than what we see today, but the fact that we can imagine it is not a bad thing," Keats says. "It's actually a good thing, because if we can imagine that, then we can also imagine what else might happen, and therefore it might motivate us to take action to shape our future." ♦

UNIVERSITY OF ARIZONA LAND ACKNOWLEDGMENT

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the university strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships and community service.

MILLENNIUM CAMERA

2023–3023

Jonathon Keats

Imagine.

What will Tucson look like in a millennium? Will the city still be inhabited? How will the flora and fauna of the Sonoran Desert change with the changing climate?

Researchers use repeat photography to understand changes in the landscape. The camera above has a 1,000-year-long exposure time, allowing future generations to observe the impact of the decisions people make today, and encouraging the present generation to consider the long-term wellbeing of the natural and built environments.



Scan for more information about the Millennium Camera.



Repeat photograph of Saguaro National Park



THE UNIVERSITY OF ARIZONA
OFFICE OF THE CHANCELLOR
TUMAMOC
TRUST LABORATORY

College of Fine Arts

This project is made possible by Arizona Institute for Resilience, the Desert Laboratory on Tumamoc Hill, and the College of Fine Arts at the University of Arizona. Funding is provided by the Technology Research Institute Fund/Philanthropy, Environmental, and Energy Systems Institute.

CONTENTS

Departments

2	Leadership	24	Program Spotlight
3	News Updates	26	In Conversation
6	In the Arts	46	Alumni-Donor Spotlight
8	Faculty Spotlight	48	Sports
10	In the Community	60	Class Notes
12	Rare Finds	64	Wildcat Journey
14	Traditions	68	Reflection



Cover Story

28

SHAPING THE FUTURE OF HEALTH CARE

The state of Arizona faces a primary care physician shortage in every county, a problem that is especially acute in rural areas. At the University of Arizona, Next-Generation Education initiatives nurture a pipeline of health care providers in primary and preventive care to build healthier communities for all.

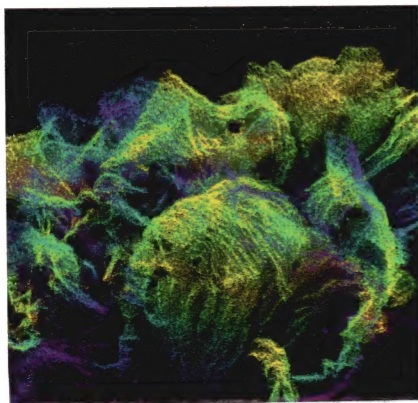
Photo: Adobe Stock

Features

16

DATA CONNECTS US

As the latest advanced technologies achieve liftoff, Wildcat researchers are exploring their implications for society. Technologies like generative AI “are not simply tools,” says Elliott Cheu of the Office of Research, Innovation and Impact. “They are powerful forces reshaping the way we work, learn and interact with the world.”



42

ON THEIR TOES

UArizona is a top U.S. university for the enrollment of former Peace Corps volunteers, who often come to Tucson through the agency's Paul D. Coverdell Fellows program. Once here, the returned volunteers make connections between past and present, determining how best to apply skills gained across the globe.



ARIZONA

PHILANTHROPY AND ALUMNI ENGAGEMENT

PUBLISHER

The University of Arizona

The University of Arizona
Executive Office of the President
Robert C. Robbins, president

John-Paul Rocznik, vice president, University of Arizona Philanthropy and Alumni Engagement program (PAE), and chief development officer, president and CEO, University of Arizona Foundation

PRODUCTION

Arizona Alumni Magazine is produced by the Office of Marketing and Communications in PAE.

Andrea Miller, senior vice president, constituent and alumni relations, marketing and communications, and giving programs

Liz Warren-Pederson '11, associate vice president, marketing and communications

ARIZONA ALUMNI MAGAZINE STAFF

Cory Aaland '13, creative director

Johnathan Alexander '27, writer

Sarah Beaudry, editor

Riley Beck '09, writer

Andrea Brooks '02, senior graphic designer

Ford Burkhart '63, contributing editor

Elizabeth Holaday '99, contributing editor

Jess Jenkins '14, online editor

Zoe Montano '25, writer

Matthew Morris '21, class notes editor and writer

Chris Richards, photographer

Kim Stoll '14, departments editor and writer

The University of Arizona
Philanthropy and Alumni Engagement program
1111 N. Cherry Ave., Tucson, AZ 85721
Telephone: 520-621-7576 | 800-232-8278
arizonaalumni.com

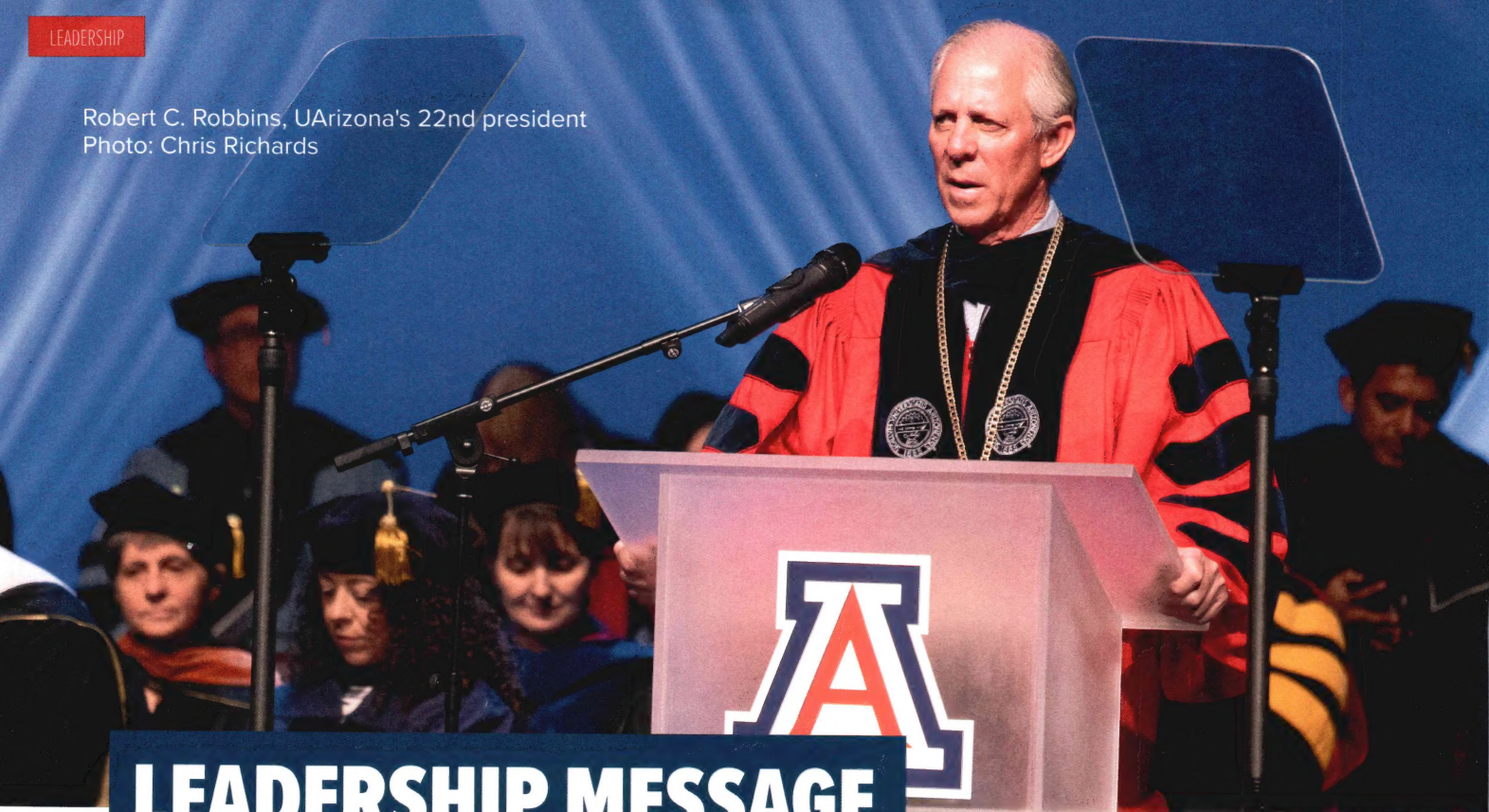
Update your information and magazine mail preferences by emailing PAE at alumni@uafoundation.org. If you opt out of receiving the printed magazine, you can read stories online at arizonaalumni.com/magazine.

The University of Arizona is committed to creating and maintaining an environment free of discrimination, including harassment and retaliation, based on race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity or genetic information.

LETTERS TO THE EDITOR

Share your magazine feedback by submitting a letter to the editor at alumni@uafoundation.org.

Robert C. Robbins, UArizona's 22nd president
Photo: Chris Richards



LEADERSHIP MESSAGE

Dear Wildcats,

The University of Arizona is essential to the future of the state — leading the way in the discovery of new knowledge, on the forefront of translating new ideas into reality, and preparing students to think big and grow into the new leaders we need in Arizona, this country and the world.

Thanks to the dedicated work of our faculty, staff and students and the impact of our amazing alumni, none of that will change as the university addresses the financial challenges you have likely read or heard about in the news.

After significant consideration and personal contemplation, I announced in April that I will step down as president of the University of Arizona after fulfilling the terms of my current contract, or sooner, if our next president is found before then. Although this was a difficult decision, it was the right decision for me and for the university I love so dearly.

It has been a true honor to lead the University of Arizona for so many

years, particularly during a time of transformational change in higher education and with challenges in the world around us. I am proud of the many advancements we made together in elevating the institution by enhancing the student experience; attracting and retaining world-class faculty and staff; increasing our research funding and philanthropy; achieving significant milestones in science, astronomy and medicine, among many other disciplines; engaging the Native Nations of Arizona and rural communities; and improving the lives of Arizona residents and the global community.

This is a world-class university. You can see it in these pages, with stories about the students of our top dance program and about paradigm-changing research in data, health sciences and management information systems. You can see it in the quality and character of our alumni — people like Dante Lauretta '93, Desirée Reed-Francois '97 and the recipients of the 2024 Alumni of the Year Awards.


The Arizona Board of Regents' search for my successor has been underway since April, and the process of stabilizing the university's finances continues under the board's guidance. The University of Arizona will emerge on the other side of this moment as a stronger, more resilient community ready to deliver on its mission for many years to come. During my time at the university, I experienced again and again how deep the Bear Down spirit goes in the university's culture. It's about determination, about going after big dreams, about moving forward through tough times and getting things done.

This spirit of resilience has been part of the fabric of the university since its inception in 1885 and will carry this community into the future.

Bear Down and 'Go, Cats!

Robert C. Robbins

Robert C. Robbins, M.D.
President
The University of Arizona



This image from NASA's James Webb Space Telescope's NIRCam (Near-Infrared Camera) of star-forming region NGC 604 shows how stellar winds from bright, hot young stars carve out cavities in surrounding gas and dust.

The bright orange streaks signify the presence of carbon-based molecules known as polycyclic aromatic hydrocarbons, or PAHs. As you travel further from the immediate cavities of dust where the star is forming, the deeper red signifies molecular hydrogen. This cooler gas is a prime environment for star formation. Hydrogen ionized by ultraviolet radiation appears as a white and blue ghostly glow.

NGC 604 is located in the Triangulum galaxy (M33), 2.73 million light-years away from Earth. It provides an opportunity for astronomers to study a high concentration of very young, massive stars in a relatively nearby region. (UARizona participates in this NASA space project.)

Photo: NASA

UNIVERSITY UPDATES

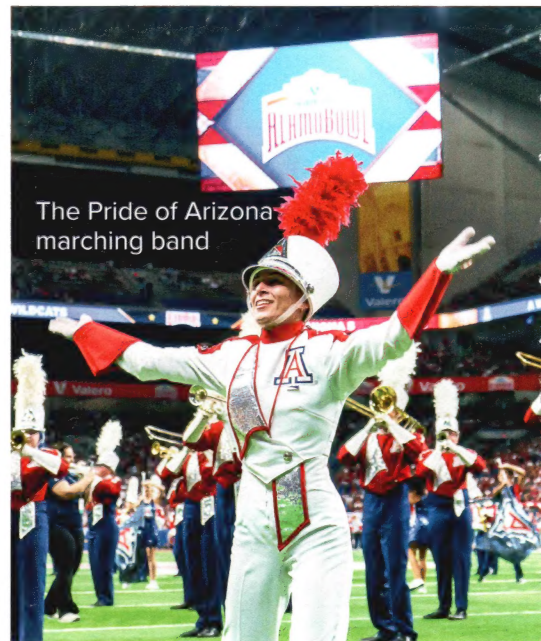
The Pride of Arizona receives a national honor and unveils new uniforms By Johnathan Alexander | Mike Christy photo

The Pride of Arizona, the University of Arizona's marching band, has been named the 2024 recipient of the Sudler Trophy by the John Philip Sousa Foundation, recognizing it as one of the best collegiate marching bands in the country. The band's high musical standards and innovative marching routines were acknowledged as part of the winning criteria, as was its contribution to advancing college marching band performance standards over a period of years. The award, which a program can only win one time, has been referred to as the Heisman Trophy of the collegiate band world by the Los Angeles Times.

"On behalf of the entire Pride and the generations of students and previous directors whose countless accomplishments and achievements made this highest honor possible, I am humbled and honored to accept this award," said Chad Shoopman '96 '99, associate professor of music, who is in his ninth year leading the band as the director of athletic bands in the University of Arizona School of Music.

Also in 2024, the band debuted new uniforms after fundraising and earning a matching grant from the Marshall Foundation. It had been more than a decade since the group marched in new gear.

Support The Pride of Arizona at give.uafoundation.org/Athletic-Bands.



Arizona Athletics generates millions of dollars for the local and state economies By University Communications

Sports fans from Tucson and beyond spend tens of millions of dollars attending University of Arizona athletics events, according to a recent study, demonstrating that the Wildcats continue to be a significant economic engine for Pima County and the state.

The study, "Visitor Impacts of Arizona Athletics Events," was conducted by UArizona Cooperative Extension and the Department of Agricultural and Resource Economics, housed within the College of Agriculture, Life and Environmental Sciences. It analyzed visitor data from the 2023 fiscal year.

The economic impact comes in the form of direct spending from visitors, taxes generated by their purchases and the thousands of jobs supported by UArizona athletics events. Arizonans who travel to Tucson for athletics events spend about \$82 million in Pima County, supporting more than 1,340 jobs with a combined income of \$44 million. Out-of-state sports fans add an additional \$50 million in visitor spending to Arizona's economy, supporting 840 jobs with a combined income of \$33 million.

When spending from all visitors was tallied, including spending by local residents and students, Arizona Athletics was found to account for about \$265 million in economic output for the state.

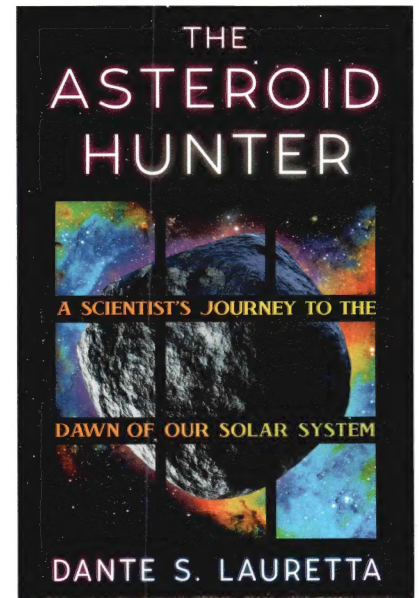
Regents Professor Dante Lauretta tells the OSIRIS-REx story in a new book **By Matthew Morris**

Dante Lauretta '93 steered NASA's historic, Wildcat-led OSIRIS-REx mission for more than a decade, working alongside more than 100 scientists to bring a sample of the asteroid Bennu to Earth.

The feat — achieved Sept. 24, 2023, when the OSIRIS-REx spacecraft hurtled through Earth's atmosphere, dropping the sample via parachute into the Utah desert — was one for the record books.

Now, the public is learning the story of the mission in a new book by Lauretta.

Published in March, "The Asteroid Hunter: A Scientist's Journey to the Dawn of our Solar System" recounts the mission and Lauretta's own experiences as principal investigator.



A New Day in Court — a groundbreaking initiative to transform advocacy **By Zoe Montañó**

The University of Arizona James E. Rogers College of Law has begun construction on a project to modernize its facilities and support its advocacy program.

The initiative, dubbed A New Day in Court, is scheduled for completion in fall 2024. It includes two new state-of-the-art courtrooms as well as classrooms and lobby spaces. Renaming the advocacy program to honor Thomas Mauet, professor emeritus and renowned advocacy expert, also is part of the project.

The A New Day in Court initiative will help prepare students for the ever-evolving legal landscape. Nearly 150 donors have supported the entirely community-funded project, raising just shy of \$4.5 million to date toward an overall \$4.9 million project goal. Major gifts have been led by alumni, friends and firms.

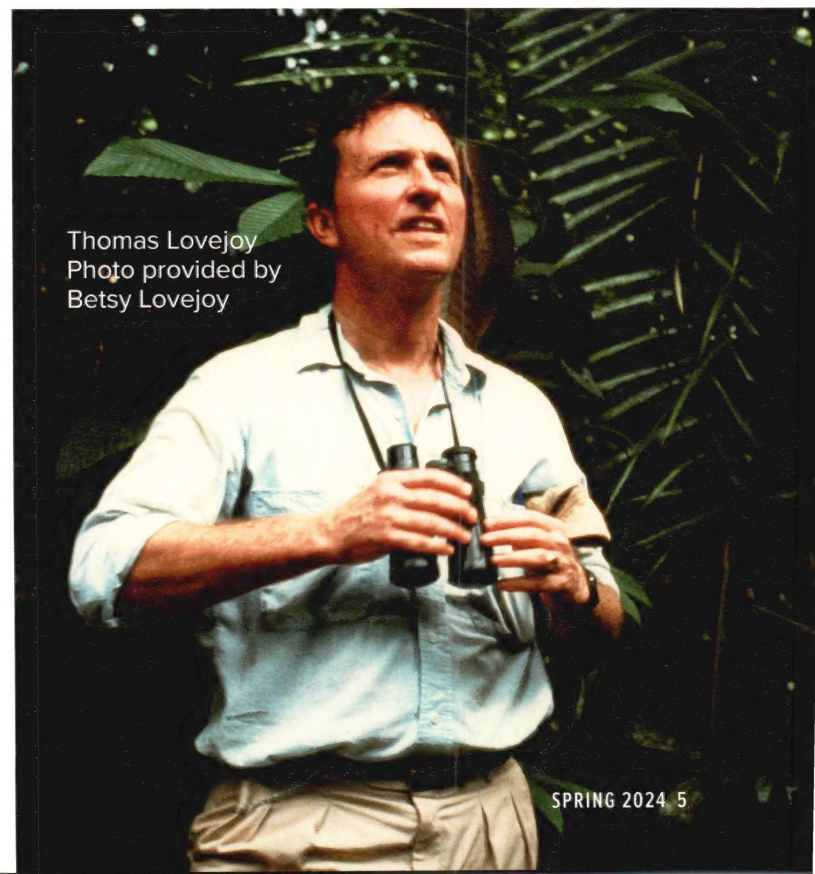
"This groundbreaking marks a significant milestone for our college," says Dean Marc Miller. "As we embark on this journey, we are not just renovating physical spaces; we are investing in the future of legal education and bolstering our nationally ranked advocacy program, aligning with our mission to produce well-rounded, skilled advocates who will make meaningful contributions to the legal profession."

A new center for biodiversity will honor renowned ecologist Thomas Lovejoy **By Shelley Littin**

Thomas Lovejoy established the field of biodiversity and was recognized internationally as one of the most important ecologists of the modern era. He died in 2021; now, a \$5 million gift from the Thomas Lovejoy Amazon Biodiversity Center to the University of Arizona will help expand the legacy of his work.

The gift will establish the Lovejoy Center for Bridging Biodiversity, Conservation Science, and Policy at the Arizona Institute for Resilience as well as the Thomas E. Lovejoy Endowed Chair. Rachel Gallery, a professor in the UArizona School of Natural Resources and the Environment, is the center's new director and inaugural holder of the endowed chair.

The center will advance research and conservation efforts, educate future conservation scientists and leaders, and develop a broader understanding of the Earth's biosphere.



School of Dance
sophomore Avery Gay
Photos: Chris Richards



MAKING HER POINTE

A fourth-generation Wildcat delivers a standout audition on 'So You Think You Can Dance.'

By Andy Ober

In March, a University of Arizona student took a tip-toed step forward in her quest for the title of “So You Think You Can Dance” champion — and a \$100,000 prize.

Avery Gay, a School of Dance sophomore, advanced past the initial audition phase of the popular Fox dance show, delivering a judge-wowing ballet performance.

Afterward, she called the experience nerve-wracking, but she also said that the adrenaline of performance produces her best dancing.

“The reason I like ballet so much is because it is so difficult,” she added. “I love the challenge. I love to grow and improve from it every single day.”

Gay began training at age 6. In 2016, she was cast in the youth television spinoff “So You Think You Can Dance: The Next Generation.” Later, she performed on “World of Dance,” executive-produced by celebrity singer and dancer Jennifer Lopez.

Gay, a fourth-generation Wildcat, said her college choice was an easy one: “We have one of the top dance programs in the country.” And on “So You Think You Can Dance,” she tried out alongside two classmates — sophomores Madison Kotch and Olivia Zeiml — who also happen to be close friends.

Also among her supporters is Liz George, an associate professor of dance who has taught her in pointe — a technique in which ballet dancers support their body weight on the tips of their toes.

“Avery is super fierce in a physical sense,” George says. “She has a really strong, solid training base. And I love seeing students enter the space when they realize that they are not just dancers — they are creators. She’s now in that space.” ♦

Gay's dance foundation is in ballet.





UArizona medical students
Photo provided by UArizona
Health Sciences

A TEACHER'S VISION

Fredric Wondisford is positioning the College of Medicine – Phoenix to become one of the nation's top medical schools. | By Zoe Montañó

In October 2023, Fredric Wondisford was named dean of the University of Arizona College of Medicine – Phoenix.

With over three decades of experience in academic medicine and translational research, Wondisford relocated to the Valley of the Sun, an exciting change for someone who had previously lived no further west than Chicago.

While he had a distinguished track record at institutions like Johns Hopkins University, the University of Chicago and Harvard University, Wondisford's groundbreaking achievement came from the development, patent and clinical launch of Thyrogen. The innovative product, a form of recombinant thyroid-stimulating hormone, changed the standard of care for patients with thyroid cancer.

However, his path began in a small Italian immigrant neighborhood hidden behind the Youngstown Sheet and Tube mills of Ohio.

"My interest in medicine actually came out of the fact that my uncle was the local family doc for the community, pro bono," Wondisford recalls. "He would take me around and meet all of the families."

Despite his father urging him toward a career in engineering, Wondisford decided to pursue a medical degree at Northeastern Ohio College of Medicine.

While in medical school, he connected with another student, Sally Radovick, who would later become his wife. "She was my cadaver partner," he says. "We met over the cadaver, went through medical school together and got married." Radovick is the director of the Clinical and Translational Sciences Institute and leader of the



Dean Fredric Wondisford
Photo: Chris Richards

All of Us Research Program at University of Arizona – Banner Health.

During his residency at University Hospitals of Cleveland and Case Western Reserve University School of Medicine, Wondisford discovered a passion for teaching and scientific research. One time, he recalls, he began to talk about teaching with his mother, an award-winning second grade teacher. She asked him to “teach her something,” he says.

“So, I spent about five minutes talking to her. And then she said, ‘Fred, you know, you’re not a very good teacher.’ Which is fine. That sort of transparency and openness was sort of the definition of how she operated,” Wondisford says.

“I became a great teacher after about 15 years of practice, trial and error. It’s not easy to be a teacher.”

Wondisford says he never hid from challenges but rather sought them out.

He joined the College of Medicine – Phoenix from Rutgers University, where he served as professor and chair of the Department of Medicine in the Robert Wood Johnson Medical

School, the Henry Rutgers Chair and Chancellor Scholar at Rutgers Health, and chief of the medical service at the Robert Wood Johnson University Hospital.

He chose his role at Rutgers, he says, because it was characterized as a “total rebuild.” He saw it as an opportunity to make a significant impact.

“I like to make improvements,” he says. “And I particularly like to improve an environment so that other faculty find it easier to succeed.”

While the College of Medicine – Phoenix doesn’t need reconstruction, its potential as a recently established institution is promising. “It is a unique school among medical schools in the sense that it’s moving out of the startup phase and into a rapid growth phase,” Wondisford says.

The demand for medical professionals is growing. Last year, the Arizona Board of Regents estimated that by 2030, Arizona’s health care sector will have a shortage of 23,000 health care professionals.

The College of Medicine – Phoenix is planning to help fill

the gap.

As part of his strategic vision for the school, Wondisford aims to raise the college’s visibility, foster stronger relationships with clinical partners and engage the community through a nearby clinic.

“I think that’s probably our next frontier for our school, is to really become embedded much more strongly in the community,” he says.

Situated on the Phoenix Bioscience Core, which houses organizations like the Translational Genomics Research Institute, Dignity Health Cancer Institute and the future Center for Advanced Molecular and Immunological Therapies, the College of Medicine – Phoenix offers great opportunities for collaboration and growth.

The college is the perfect place for Wondisford to bring his vision to life.

“My vision for the College of Medicine – Phoenix is to become one of the top medical schools in the United States and to improve the health of communities through distinction in personalized medical education, translational research and patient care within a culture of inclusive excellence,” he says. ♦

Zachariah Thurn hugs a saguaro.
Photos: Chris Richards

HAPPY CAMPERS

The Cooper Center for Environmental Learning, affectionately known as Camp Cooper, turns 60. | By Margaret Regan

On a dark and stormy night in February, no fewer than 50 fourth graders were sleeping in cabins at Camp Cooper, chaperoned by a handful of parents. Located to the west of town in the Tucson Mountains, the camp is hidden away among mountain trails. They woke up to a gorgeous blue sky, and all they could see was nature.

The kids, from Lineweaver Elementary School, would be spending three days here. Some of them had never spent a night away from home. Some had never walked along a desert trail.

A staff educator at the camp, Isaac Silva '21, who graduated with a bachelor's in psychology, had planned an adventure for them. But first, they were gathering around their teachers, making sure their water bottles were full. As they set off, three little girls walked arm in arm. Off to the side, a boy seemed intent on climbing into a small cave to see what he could find, but he was cajoled back to his pals by his teacher.

Silva, a big man with a black beard, a wide-brimmed hat and a booming voice, led the way. He'd told the kids they were going to follow in the trail of a local naturalist — the fictional Professor EM — who'd kept field notes of what he'd observed. With a diary in hand, Silva invited

the kids to look for hidden treasures: pack-rat middens, a decomposing saguaro and a rock in the shape of a triangle. The ramble mimicked a scavenger hunt, with each kid keeping their own log of what they saw.

Another staffer, Aliya McDonald '22, a Camp Cooper alum herself who graduated with a bachelor's in education, herded the young explorers along. "I came, I think, in the third grade and spent the night. It was fun! We had s'mores the night before, and in the morning, the sticks had been licked clean by some animals," she said, laughing.

McDonald started her career as a regular classroom teacher and then had the good fortune to be hired at Camp Cooper last August. It's a dream job for her. "It's pretty rare that you get to be outside every day for work," she says, "and getting to strengthen my own personal knowledge of local plants and wildlife has been really fun. The kids can create super-strong connections with nature that they wouldn't get to do within the four walls of a classroom."

Colin Waite, the camp's director, smiled amid the excitement of the scavenger hunt. The camp started back in 1964, he said, after Herbert Cooper acquired the 10-acre site for the Tucson Unified School District. The



Camp Cooper's Isaac Silva

camp was named after Cooper, who had been appointed coordinator of auxiliary agencies for TUSD in July 1953. The site was purchased as a potential location for a new school.

"Teachers from some of the westside schools knew that the district had this property, and they just started to bring their kids out," Waite said. "No facilities, no trails, no staff. They just did it."

Eventually, a naturalist named Chuck Hansen was named the camp's first director, and a small staff was hired. "They put in some big military-style canvas tents," Waite went on, "with concrete floors and big metal tent poles. Each had their own little campfires. Camp Cooper was born."

In the 1970s, the tents were replaced with concrete block buildings, including bathrooms, that still stand. None had heating or cooling. Now, as Camp Cooper celebrates its 60th anniversary, big renovations are in the works thanks to generous donors and foundation grants. New bathrooms with composting toilets will be built, and the old bathroom building will be converted into a solar-powered shower house.

Since 2008, Camp Cooper has been a partnership between TUSD and the College of Education at UArizona, thanks to the efforts of then-Dean Bruce Johnson. Though still known affectionately as Camp Cooper, its proper name is the Cooper Center for Environmental Learning. The district owns the property and handles the maintenance and utilities, and the college provides the staff and operations. All positions except the director are funded through philanthropy. Currently, six outdoor educators work with teachers to design activities for the kids.

McDonald isn't the only Camp Cooper and UArizona alum who went on to a career in the environmental sciences. Many other Wildcats are paying it forward. Christine Goforth '04, for example, is the director of citizen science at the North Carolina Museum of Natural Sciences. She works with children on projects like helping them wrangle dragonflies.

Two other Camp Cooper alumni are well known in Tucson: Anthony Aldinger is famous around town as Mr. Nature of Mr. Nature's Music Garden. He sings songs and tells stories about the great outdoors,

sharing the wonders of the Sonoran Desert with school groups and other young audiences. Ray Clamons '05, who earned a bachelor's in architecture, runs Natural Building Works, designing straw-bale and rammed-earth buildings with environmentally friendly landscaping.

One of the Lineweaver teachers, Samantha Lauderdale '02, who earned a bachelor's in education, tells the story of a little boy who just might follow the footsteps of those Camp Cooper alumni. "It's one of my all-time favorite memories," she says. After his first night, he was not a happy camper. "[He] had been grumbling for a couple of days." But despite the cold and the dirt, she persuaded him to hike up a high hill. Up they went, and what they found was a spectacular view of the mountains.

He was awestruck by what he saw: the open sky, the passing clouds, the changing colors, the rain in the distance. "I've never seen anything like this before," he said. ♦

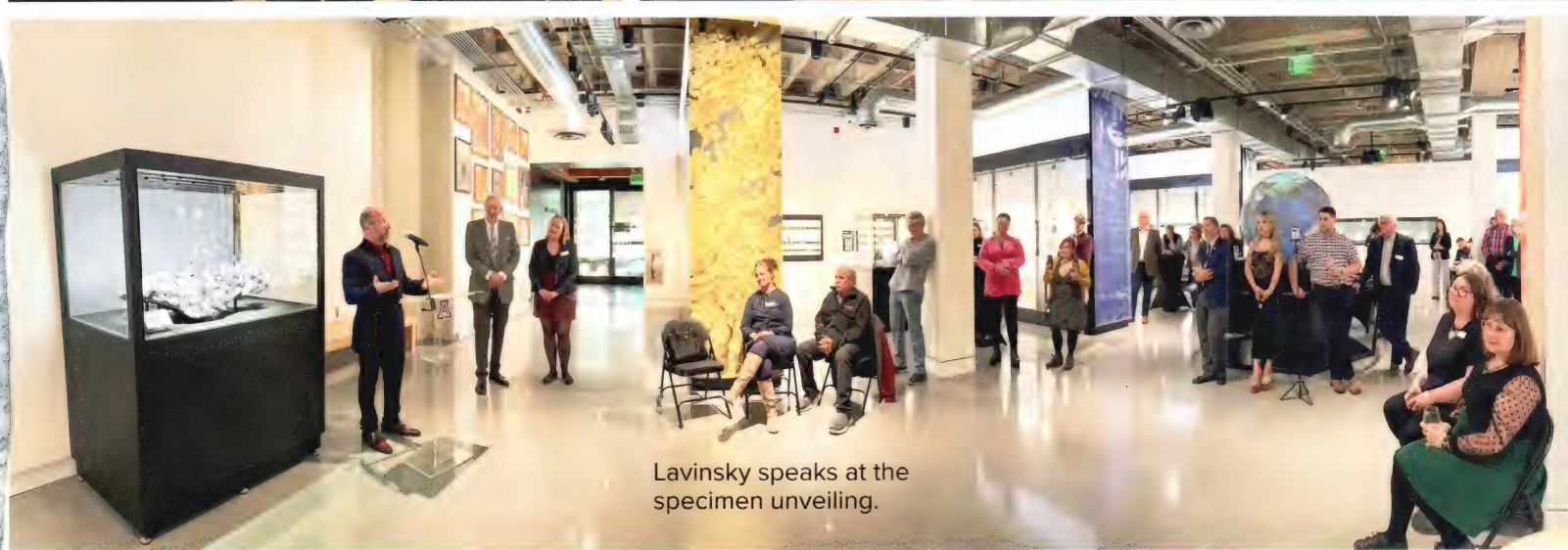
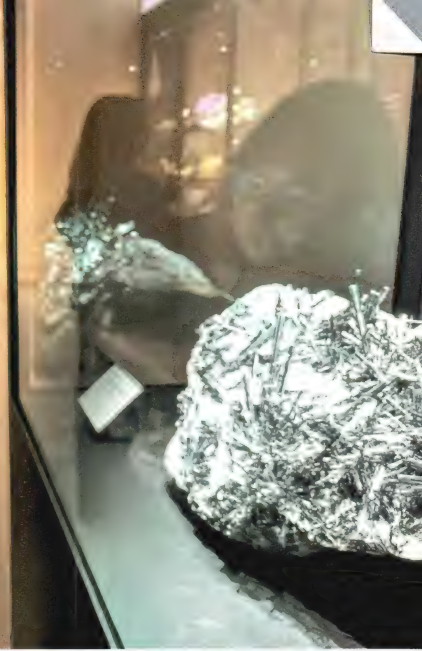
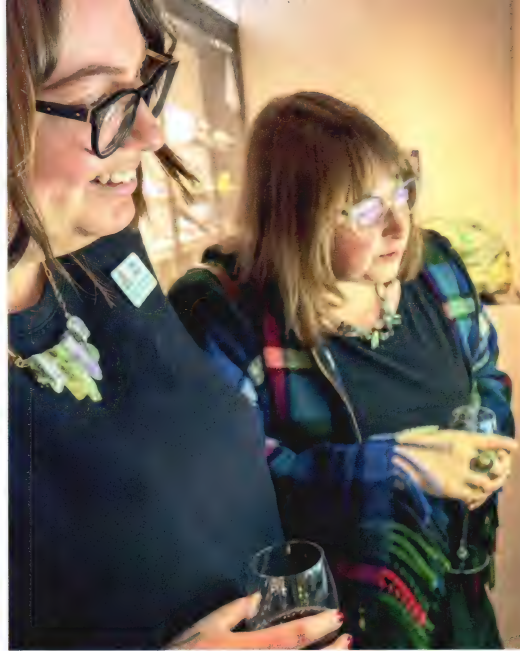
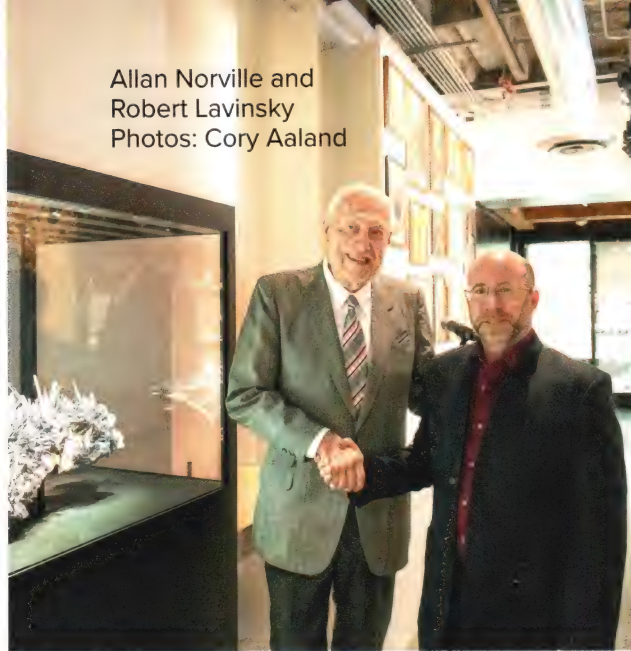
Support the Cooper Center at give.uafoundation.org/cooper-center.

Ancient Egyptians used powdered stibnite as eyeshadow.
Photo: Chris Richards



A RARE AND INTRICATE BEAUTY

UArizona's gem and mineral museum receives a stibnite specimen. | By Emily Litvack



Lavinsky speaks at the
specimen unveiling.

Opaque and gleaming, metallic gray with long, spear-like, prismatic crystals, stibnite is a compound of antimony and sulfur originating roughly 130 million years ago.

The mineral has a storied history of human use that spans centuries and societies. As early as 3,100 B.C., ancient Egyptians powdered stibnite to use as eyeshadow and to treat eye infections. In ancient Rome, stibnite was associated with Pluto, ruler of the underworld. Later, the Prophet Muhammad claimed that stibnite cleared one's vision and promoted hair growth.

The University of Arizona Alfie Norville Gem and Mineral Museum received a massive, rare stibnite specimen from Robert Lavinsky, a world-renowned mineral collector, science education advocate and long-time supporter of the university. The unveiling coincided with the 2024 Tucson Gem and Mineral Show, the largest and oldest gem show in the world. Extracted in 2003 from the Wuling Mine in the Jiangxi Province of southeastern China, the stibnite specimen is now part of

the museum's permanent collection and on display for public viewing.

Stibnite is brittle and soft, scoring only 2 out of 10 on the Mohs Hardness Scale, which mineralogists use to grade the relative hardness of minerals. Because of this, stibnite crystals are not often found complete, which makes a specimen of this size, intricacy and quality exceptionally rare. Only a handful of such specimens exist, all of which were extracted from the Wuling Mine in the early 2000s.

In addition to donating a stibnite specimen to UArizona, Lavinsky has donated one to the Yale Peabody Museum.

"Both Yale and UArizona share my vision of a 'beauty first' approach to education, displaying valuable specimens of minerals as inspirational works of natural art," says Lavinsky. "As a lifelong collector, it is an honor to make this joint donation to two such worthy museums and to share the inspiration and awe that these specimens evoke in me." ♦

Grupo Folklórico Miztontli

Photos: Chris Richards



FINDING HOME THROUGH FOLKLÓRICO

Grupo Folklórico Miztontli's dancers promote cultural awareness while tapping into their heritage.

By Zoe Montañó

In the basement of the Ina Gittings Building, which houses the University of Arizona School of Dance, a group of dedicated students gathers twice a week to practice Mexican folklórico dance.

Students lead each other in choreography, dressed in joggers, baggy T-shirts and heeled dance shoes. The infectious rhythm of the music bounces off the gray walls as their feet click and they clap along to the beat. Smiles beam across their faces, and their eyes focus as they learn the routine for their next dance.

"When you're watching folklórico, you are looking at a piece of history that has been preserved in these presentations," says choreographer Joel Saldaña, a doctoral candidate in Mexican American studies.

From the charro suits and brightly colored embroidered dresses of Jalisco to the simpler vaquero-styled slacks and jean skirts of Baja California, every song, outfit, style and technique is tied to one of

Mexico's 32 federal entities and diverse cultural subgroups.

Saldaña, who is from Guanajuato, Mexico, had never danced folklórico before coming to University of Arizona.

"Coming from Mexico here to the United States, you start to assimilate some of the culture, and you might forget some of the things that you grew up with," says Saldaña, who has been with the group for over nine years.

Before 2006, the university didn't have a folklórico student organization, despite its ties to Tucson's Mexican community and the proliferation of folklórico groups in the area.

Then Denise Garcia, an undergraduate from Albuquerque, came to UArizona and began searching for a folklórico group to join on campus. She connected with Socorro Carrizosa, then the director of the



Guerrero Student Center, and the two began to lay the foundation for what would become Grupo Folklórico Miztontli, the university's first student folklórico dance group. They chose its name from the Nahuatl word "miztontli," meaning "puma cub" or "cat," a nod to UArizona's wildcat mascot.

"This is very important, because it's who I am," says club co-president Luisa Becerra, an undergraduate studying molecular and cellular biology with a minor in astrobiology.

Becerra, whose family is from Chihuahua, says that folklórico has given her the chance to showcase where she comes from in a beautiful form.

"My ancestors before me saw those dances and grew up with those songs. For me to be able to dance with similar steps that have been passed on from generation to generation is something very, very overwhelming," she says. "There are no words to explain it when you're on stage."

Becerra leads the group's Wednesday night practices alongside co-president Adrian Gonzales, who is studying computer science and game design and development with a minor in Spanish.

Gonzales fell into the world of folklórico by accident in high school. Originally wanting to pursue

a guitar course for mariachi, he was randomly placed in a folklórico class. He soon fell in love with performing and decided to continue as a college student.

"My family comes from Sonora, and when I was little, my dad and my grandma loved to take us to watch mariachi," Gonzales says, referencing shows where musicians and folklórico dancers perform side by side. "Every time, I try to do my best so I can make my grandma proud."

He recalls that during high school, his friends would try to pressure him to drop folklórico and join either football or baseball.

"Folklórico can be cool," Gonzales says, smiling. "Just because we're not on the field throwing touchdowns or whatever doesn't mean that we're not as worthy as they are."

While Gonzales never played a sport, Grupo Folklórico Miztontli had the opportunity to perform on UArizona's football field during the Hispanic heritage football game halftime show.

In fact, the group has performed at a variety of venues, such as Tucson Meet Yourself, a folklife festival that celebrates the traditions of the Arizona-Sonora region's communities, and the All Souls Procession, a local event that honors and remembers those who have passed.

The club's vice president, Andruw Cruz Martinez, says that while folklórico looks effortless, rigorous physical fitness and dedication are required.

"When you go watch people dance, you're thinking, 'this looks beautiful, it looks great' — but in reality, there's a lot of hard work that goes behind the scenes into it," explains Martinez. "Even onstage, it isn't easy. It's tiring out there."

Martinez, currently pursuing a neuroscience degree with an emphasis in neurobiology, emphasizes the significance of folklórico to honor his heritage and promote cultural awareness.

"In a lot of spaces I'm in, there's not many people who are of Mexican or Hispanic descent," he says. "So, for me, it's very important to not only represent myself well but represent my culture."

Annett Trujillo, who serves as the club's outreach director and is studying communications and public relations, says that her favorite part about Grupo Folklórico Miztontli is the sense of belonging it provides.

"It's hard, if you're in a lot of places around campus, to find people that look like you, talk like you or just are around that same culture," she says. "It's important to spread out and find other people like that." ♦

DATA CONNECTS US



Photo: Adobe Stock

EXPLORE THE WIDE REACH OF RESEARCH, INNOVATION & IMPACT AT THE UNIVERSITY OF ARIZONA



"Today's advanced technologies are not simply tools," says Elliott Cheu, University of Arizona interim senior vice president of research and innovation. "They are powerful forces reshaping the way we work, learn and interact with the world. Data science, machine learning and generative AI are evolving at lightning speed, expanding what is possible in education, research, industry and how we live our lives."

Researchers and scientists across the university are leveraging data and advanced computation to meet the demands of a changing society and to educate the next generation of leaders in all sectors of life and business.

"Machine learning and data science are rapidly changing what industry can accomplish if workers have the right skills and tools," says Arthur "Barney" Maccabe, executive director of the university's Institute for Computation & Data-Enabled Insight (ICDI). "This has always been a challenge in society when new technologies emerge. The important thing is to meet people where they are."

Historically, UArizona has offered certificates and applied master's degrees, he says, but that's not a solution for everyone. "We also need more innovative models, like services we're building in ICDI, where people in industry can bring their own data and we work with them to extract information and teach them skills, including AI technologies, in the process," he says.

The university's Data Science Institute already offers a "bring your data" capability for the campus workforce of faculty and graduate students — its research workforce. The goal is to build data acumen for people who are already experts in their fields, especially with the rapid pace of technology advancement.

"We know that with new technologies come important ethical questions and responsibilities that we must address as a society," Cheu says. "Our forward-thinking researchers are tackling tough questions about the limitations and potential pitfalls of data and computation."

Read more about some of the ways UArizona is harnessing the power of data and AI for the benefit of our students, our state and society at large. ♦

The Data Connects Us series is published in partnership with the university's Office of Research, Innovation & Impact (RII) and the Institute for Computation & Data-Enabled Insight. RII content was written by Eric Van Meter and originally published in the RII Magazine in December 2023 based on reporting by Rosemary Brandt, Logan Burtch-Buus, Anna Christensen, Emily Dieckman, Mikayla Mace Kelley, Susan McGinley, Kimberly Nichols and Niranjana Rajalakshmi.



Read more
Data Connects Us stories



Explore the wide reach of
Research, Innovation & Impact
at the University of Arizona



Mohammed Hassan
Photo: UArizona

TRANSITIONING BEYOND TRANSISTORS

COMPUTING AT THE SPEED OF LIGHT

Mohammed Hassan, associate professor in the College of Science, leads international research demonstrating a way to register the on/off switching of laser signals at speeds on the scale of attoseconds, or quintillionths of a second.

The breakthrough paves the way for previously unattainable data transfers, including ultra-distance communications, such as from Earth into deep space.

Nearly all computers and electronics in use today still rely on semiconductor-based transistors, a 1940s innovation that translates electrical signals into “on or off” binary data. Efforts to advance computing power have overwhelmingly focused on increasing the rate of signaling, achieving speeds at the scale of trillionths of a second in today’s most advanced systems.

However, the electricity in these systems creates heat in various ways, requiring cooling strategies like fans or liquid cooling systems. This also establishes a theoretical ceiling for performance because at some point, the energy required for cooling the system exceeds the energy it can support.

As an alternative to electricity, all-optical signaling offers a way around the heat problem. It also enables data transfer a million times faster. But registering the signals to translate them into binary data has been an unsolved challenge.

Hassan and his research team devised a way to log the on/off state of laser signals at unprecedented speeds with fused silica. This special form of silicon dioxide can change from being reflective to being nearly transparent — corresponding to the on/off state of computing data — almost instantaneously. ♦



Photo: Adobe Stock

WEAR IT WELL

DATA, DEVICES AND HEALTH

Data is key to modern medicine, and everyday wearables offer the promise of more comprehensive data for better health outcomes. Unfortunately, due to multiple points of failure — including device removal, jiggling, and loss of contact or loss of power — Fitbits and smartwatches still don't come close to delivering clinical-grade data.

Led by Philipp Gutruf, assistant professor in the College of Engineering, the Gutruf Lab is overcoming these deficiencies with “biosymbiotic” wearables: custom-printed, perfect-fit mesh wearables that provide continuous, high-fidelity sensing anywhere on the body. They get power and send data wirelessly, disappear under clothing and are so lightweight that users can forget they're there.

The lab is also creating implantables that open avenues for gathering data and delivering interventions. A collaboration with University

of Arizona orthopedic surgeons created the world's first battery-free digital internal sensors to capture data on bone health. The devices also have integrated LEDs to deliver therapeutic optical stimulation, all powered wirelessly.

The research team also co-invented a next-gen pacemaker. In lieu of electrical leads attached with screws or hooks, a soft, wireless, battery-free “glove” unfolds around the heart. Placement is less invasive, and rather than shocking the heart — including its pain receptors — it issues precisely targeted light that only stimulates the neurons that trigger contraction.

Ultimately, the scientists see these two domains converging: seamlessly integrated wearable and implantable devices — wireless, fully automated and always on — that merge sensing and stimulation to deliver unprecedented insight into health and provide closed-loop, personalized interventions. ♦



Rui Chang
Photo: Kris Hanning

A NEW HOPE

GENE MODELING REVEALS MOST PROMISING ALZHEIMER'S INTERVENTIONS TO DATE

University of Arizona researchers have, for the first time, shown that big data and advanced computing could unlock a way to treat and even prevent Alzheimer's disease. The next step: human trials funded by the National Institutes of Health.

With more than 2,000 samples from a national database of brain tissue from patients who had Alzheimer's, Rui Chang, associate professor in the College of Medicine – Tucson, created an algorithm that integrates today's vast but disconnected knowledge of genetics and

molecular processes to create a brain model unlike any other. It allows scientists to see how gene changes at one point in time trigger divergent chain reactions and downstream effects.

The tool revealed 19 genes that, when undergoing changes upstream, lead to downstream amyloid plaques and tau tangles in the brain — hallmark symptoms of Alzheimer's. Collaborators at Harvard University confirmed that effect in the lab, validating the genes as treatment targets.

Chang then used 3D computer models to rapidly identify 3,000 federally approved drug compounds that “fit” those target genes, not unlike the way keys fit certain locks. Clinical trials will now offer the first tests to discover whether any of those compounds could prove the key that not only improves Alzheimer's symptoms but can even prevent the disease. ♦



Photo: Adobe Stock

AUGMENTED EXPERTISE

MACHINE LEARNING COULD IMPROVE AUTISM OUTCOMES

An interdisciplinary team of researchers is developing ways for non-expert clinicians to identify children at risk for autism spectrum disorder (ASD), which affects 1 in 54 children in the U.S.

Led by Gondy Leroy, professor in the Eller College of Management, the team combines expertise in information science, pediatric medicine and public health. The researchers are using machine learning to mark the electronic health records of children at high risk

for autism based on observed behaviors that align with a medical diagnosis of ASD.

Early diagnosis and treatment drive the best long-term outcomes for children ultimately diagnosed with ASD, a condition that today is often identified late or missed entirely in childhood.

Tools from the research, funded by a \$1.5 million health information technology grant from the National Institute of Mental Health, will encourage earlier referrals for expert evaluation and will be particularly valuable in smaller towns and rural areas, which are home to fewer physicians, especially those with specialized training for early detection of ASD. ♦



WELLNESS BY DESIGN

BUILDING FOR BETTER HEALTH

Adults in industrialized nations spend roughly 90% of their lives indoors. Those environments affect us as individuals — patient recoveries in hospitals, for example — and as societies, such as by impacting productivity and, by extension, economies.

Altaf Engineer, associate professor in the College of Architecture, Planning and Landscape Architecture, is working on several projects to make indoor environments healthier for both crisis response and everyday well-being.

Research to create “smart buildings” is resulting in networks driven by data in which ventilation and other systems automatically respond to environmental conditions in real time. The lack of systems that simultaneously monitor and improve indoor air quality was

highlighted during the coronavirus pandemic as a critical health management gap.

Another project explores how ambient light and color in an environment can influence perceived temperature — people may feel warmer around reds and oranges, for example.

Study participants are equipped with various sensors worn on their wrists, head, chest and even in their shoes to monitor light exposure, activity, sleep quality, heart rate variability (an indicator of stress) and more. At the same time, stand-alone sensors monitor aspects of the participants’ environment, such as air quality, temperature and humidity.

Algorithms analyze the continuously amassing data to reveal how environmental factors drive changes in heart rate, stress response and other physiological responses — knowledge that can inform healthier renovations and shape new principles for evidence-based, healthful building design. ♦



Edith Silas, Hopi
tribal member
Photo: Chris Richards

HERITAGE AS DATA

TECHNOLOGY BRINGS NEW TOOLS TO REVITALIZE ENDANGERED LANGUAGES

University of Arizona scholars are collaborating with Indigenous communities to fortify endangered languages.

Combining data science, machine learning and other technologies, the work offers a model for safeguarding cultural heritage and creates tools for self-directed language work in communities around the world.

One project supports revitalizing the ancestral language of the Schitsu'umsh, also known as the Coeur d'Alene tribe. The last elder who grew up speaking it as their first language died in 2018.

Linguists in the College of Social and Behavioral Sciences, working with the university's American Indian Language Development Institute, have created a web application that is being trained on Coeur d'Alene words as a path to mastering the language more broadly.

With machine learning, the application will eventually be able to independently build its command of the language by scanning texts to learn more advanced grammar and syntax. Those scanned materials also will become part of a master archive, opening doors to a trove of potential research that relies on databases of digitized text.

A separate project in partnership with the Tohono O'odham Community College campus in Sells, Arizona, uses similar technologies to develop natural language voice recognition for the O'odham language.

One goal of the work is to develop algorithms so fully trained that they'll be able to provide automated transcriptions of tribal audio archives, such as decades of recorded community meetings and events. ♦



THE PERSISTENCE PRINCIPLE

AT 50, UARIZONA'S TOP-RANKED MANAGEMENT INFORMATION SYSTEMS DEPARTMENT TAKES STOCK OF ITS PAST AND LOOKS TO THE FUTURE

By Matthew Morris

Where artificial intelligence is concerned, Sue Brown sees divergent futures. In

one, humans and technology become increasingly entangled: People move about with implants, receive a universal income and no longer work. In the other, society does away with the trappings of machine-driven advances, declaring that “enough is enough.”

But more likely, she says, is a middle path: “We figure out a way to reap the benefits from technology while also still being able to gainfully participate in society.”

The veteran management information systems professor, who also heads the University of Arizona’s highly regarded MIS department, is direct and clear in voicing her thoughts on the future of technology, including her concerns. And she is equally forthright with regard to the prolifically productive department she leads, which she says teaches students to do one thing as their world evolves: adapt.

MIS, she says for those new to the discipline, “sits between computing and business,” with a focus on tech’s human impact. And “technology isn’t standing still,” says Brown, who holds the Stevie Eller Professorship. “No matter what we teach [students] today, they’re going to have to augment their knowledge going forward. And so, being adaptable, flexible and lifelong learners is really the thing.”

The department, housed in the Eller College of Management, turns 50 this spring, and the success of the half-century behind it speaks well for the half-century ahead. It’s been ranked in the top five nationally by U.S.

News & World Report for both graduate and undergraduate study every year since 1989 — when the rankings began — and leads the nation in external research funding among MIS programs in business schools. Back when Brown was a doctoral candidate at the University of Minnesota in the ’90s, UArizona’s program was the only one at the same level — which made her hiring here, in 2005, all the more exciting.

The department, she says, has an “underlying entrepreneurial bent” that goes something like this: “If the data doesn’t exist, I’m going to figure out a way to get the data so I can do the research I want to do. If the technology doesn’t exist, I’m going to figure out how to make the technology [function].”

Like most things of quality, MIS in Tucson started quietly and then built to something sustainable and strong. Regents Professor, department founder and MIS legend Jay Nunamaker, 86 years old and still teaching, has a lot to do with that.

The soft-spoken scholar came to Tucson in 1974, moving from the Midwest to stand up a program he wasn’t initially tabbed to helm alone. As he tells it, he got the call during the drive out to the desert from West Lafayette, Indiana, where he’d been a tenured professor of computer science and industrial administration at Purdue University. He’d packed up his car thinking he’d be the director of research, with a colleague charged to steer things administratively. But when the professor offered the administrative role backed out, then-Provost Albert Weaver dialed Nunamaker with an expanded job offer.

“Everybody that I trusted said, ‘Don’t do it. That’ll be the end of your career. You won’t do any research,’” says Nunamaker, who holds the Soldwedel Chair in Management Information



Systems. Everyone, that is, except his former graduate adviser, who told him, “Find people on campus that can help you, and build that relationship.”

He was able to strengthen those bonds, he says, because of the credibility he’d earned at Purdue by garnering grants from the National Science Foundation and the Defense Advanced Research Projects Agency. And together, he and his colleagues raised the department up — but not without some luck.

A case in point: In 1986, the MIS doctoral program admitted 24 applicants, guessing that about half would say yes. But everyone accepted. After “a lot of heat from the administration,” Nunamaker says, the funding necessary to bring in all 24 came through. “That was when the doctoral program took off,” he adds, not without humor.

In ’86 and the years after, the department also welcomed a substantial number of doctoral candidates who were recipients of prestigious fellowships from the American Association of Collegiate Schools of Business. “People were starting to recognize that Arizona was a special place,” Nunamaker says, citing the on-campus labs the department used as showpieces. Once they’d visited, he adds, “We never lost a top doctoral student.”

He’s been around a while, long enough to experience successes and failures and to watch both alumni and junior faculty strengthen the program’s legacy. Nunamaker and others created the software program GroupSystems in the ’80s, in his on-campus lab, the Center for the Management of Information. The technology, he says, let employees talk to each other without being in the same room — like Zoom, “only it was 20 years before Zoom.” Today, he sees the product as too complex on its face and ahead of its time, maybe too far.

Within the department, Nunamaker is seen as the well from which so much else has sprung. Regents Professor Hsinchun Chen, who started up the Artificial Intelligence Lab when he arrived at UArizona in 1989 — still the only AI lab in a business school — says Nunamaker “took a chance on me.”

‘No matter what we teach today, they’re going to have to augment their knowledge going forward. And so, being adaptable, flexible and lifelong learners is really the thing.’

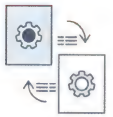
“I came in ... unknown to him at all. At the time, I’m doing AI, but nobody knows AI,” says Chen, who holds the Thomas R. Brown Chair in Management and Technology. “Jay is always instrumental in trailblazing his own path,” he says, describing Nunamaker as one of the two or three foundational thinkers in the field.

These days, Nunamaker is working with his very last doctoral student after mentoring more than 100 of them. And the department, with Brown’s guidance, keeps moving. The program recently inaugurated a master’s degree in cybersecurity, she notes, and Nunamaker says that remnants of the early days linger. In the beginning, for example, founding faculty members Jim LaSalle and Wayne Eirich taught a popular information systems class in Centennial Hall, Eirich dressing up in, say, a white lab coat for topics in the sciences — part entertainer, Nunamaker recalls, and part disciplinarian. (The course’s early 2,000-plus enrollments, he notes, generated the funds for the department to hire additional research faculty.) Today, Bill Neumann teaches the course, wearing a different tie to every lecture, patterned every way one might imagine.

And Chen sees the department playing a significant role in AI in the 50 years to come, despite the financial constraints of the present moment. He echoes Nunamaker, whose guidance to first-semester doctoral students includes “the persistence principle”: “Never quit; keep trying; keep exploring; overcome obstacles. There is no finish line.”

“The direction is clear: I think we are in the driver’s seat,” Chen says. “We can make [an] impact on AI from the business school perspective. But we just have to get enough resources; we have to train our students. We’re teaching the right content. And they’re going to march out to be good professors elsewhere. They are going to go out to the best companies out there — Amazon, Tesla and so on.”

As the world spins, then, they’ll make it a bit brighter — like technology, never standing still. ♦





Hsinchun Chen
Photo: UArizona

Q&A: HSINCHUN CHEN

HOW ARTIFICIAL INTELLIGENCE CAN SOLVE DISPARATE PROBLEMS

By Riley Beck

Hsinchun Chen is a University of Arizona Regents Professor in the Department of Management Information Systems, which is ranked among the top five programs in the nation. He also is the Thomas R. Brown Chair in Management and Technology and the director of both the Artificial Intelligence Laboratory, which he founded at the university 35 years ago, and the AZSecure Cybersecurity Fellowship Program.

Chen has been with the MIS department since 1989. He is an expert in areas that range from

web computing, search engines and digital libraries to intelligence analysis, biomedical informatics, data mining and knowledge management. He has authored and edited hundreds of publications on these topics and has served as an adviser for national and international research programs in his areas of expertise.

Chen also is a successful entrepreneur and founder of Knowledge Computing Corporation, a university spinoff IT company and a market leader in law enforcement and intelligence information sharing and data mining.

Q: You developed the AI Lab 35 years ago, when the internet as we know it was still nascent. Why did you think it was important to focus on artificial intelligence at that time?

A: I didn't know AI was coming. That time was AI winter; right now, it's AI summer. AI has gone through many swings of summers and winters.

This is a large summer that may last for a few years.

I just liked AI because my personality is driving me to pursue topics that are new, that are interesting, that are unknown. AI is always on the forefront of computer science in exploring things that humans are good at doing but computers are not — yet. That type of a paradigm inspires me. I'm always using AI to solve problems that are important in the world.

Q: What inspired you to develop COPLINK?

A: I accidentally [got] into COPLINK because one of my students was a police officer, and he said, "Dr. Chen, you're doing digital library to search medical literature. Can we use that for police report?" I said, "Why not?"

The first part took two years: Fifty undergrads collecting data from different sources, normalizing it, creating the keys — or the person's name, address, fingerprints, everything. After we finished doing that, we added the AI system, like a detective. If I cannot find a criminal, but I know his co-offenders, his past victims, et cetera, I can find associations. I can find their next potential targets. In the past, this takes days. Now it takes two seconds.

Now almost all agencies in USA and Europe are using that.

Q: I understand you developed SilverLink, which predicts falls, for your mother. Can you explain how it works?

A: There are sensors that senior citizens wear on their necks, put on the toilet seats, put on the shower curtain, put on the door of the fridge. So it patiently collects data about their movements. Those records are sent to a phone acting as a server and sending data to the cloud.

This is a project that was designed for my mom and people like her, senior citizens. This project is a move from [a] document database to sensor data collected in real time. So it allows you to track movement for detection or even for prediction. This system is a guardian angel

for you, overlooking you and looking at your movements, and sends out alert signals to a dispatcher when something happens to you.

Q: I read that there are Barbie dolls in the AI Lab. Can you explain why?

A: [Barbies] are not regular toys anymore. They are "smart toys," so they have internet capability. And that introduces vulnerabilities. Smart toys have a mechanism for talking and storing and transmitting information. In between collecting and transmitting data, that information can be hijacked. We research how it can be hacked or exploited and how to protect consumers from malicious activity with AI.

Toys could talk back to you if someone has hijacked your Barbie doll, or hijackers can use a camera to monitor your kids or talk to the kids without parents present. We take things apart and find the vulnerabilities in different "internet of things" devices, like Barbie dolls. An interesting story: To get approval to buy the \$39 Barbie dolls was one of the most difficult purchases of my academic career because we had to justify why an AI lab needed to purchase a Barbie doll.

Q: How do you think AI will change the nature of work?

A: AI can change you; you can change AI. In my area, I'm an AI developer; I'm an AI adopter. So I don't let AI change me because I can change AI in a way. I can take AI apart and change the code and use it to do things I want it to do — but that's not an ability that most people have, regular people.

AI can change the nature of work; there's no question about that. But I think the more important thing is: How do you shape AI into something that fits with you? You need to have a certain level of sophistication. You cannot just be a user. You have to have the ability to shape AI in a way that best fits your work or your industry.

You have to control AI, not let AI control you. ♦

Shaping the Future of Health Care

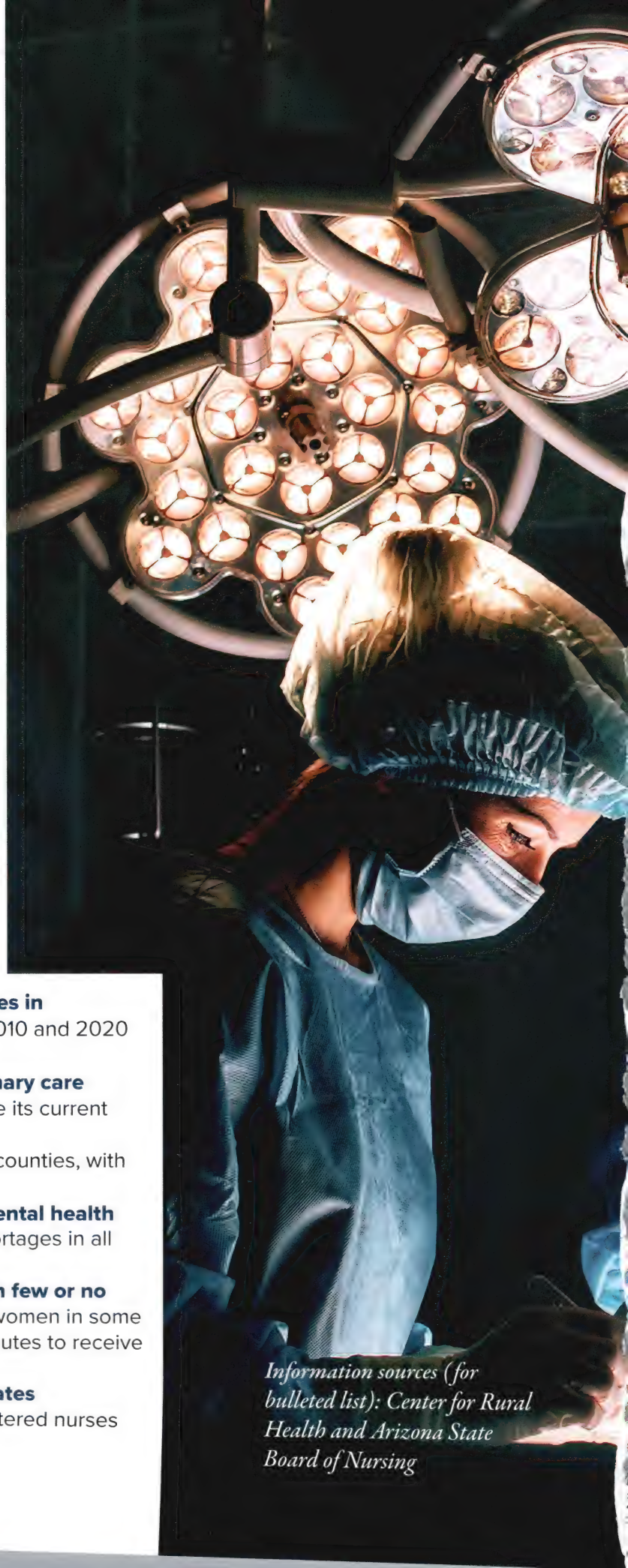
Stories and photos by UArizona Health Sciences unless otherwise noted

At the University of Arizona Health Sciences, leaders are preparing students to build and lead the future of health care. A series of transformative programs will ensure that the next generation of health care professionals is well prepared to improve health and human potential and to provide compassionate and culturally sensitive care to build healthier communities for all.

UArizona Health Sciences' educational priorities focus on nurturing a pipeline of health care providers with an emphasis on primary, preventive and prenatal care, especially in rural areas. Leaders take a comprehensive approach to lifelong learning, harmonizing experiences across diverse health sciences disciplines to meet the growing need for a skilled health care workforce, within Arizona and around the world. ♦

Health Care Outlook in the State of Arizona

- **Arizona is one of the fastest-growing states in population**, having grown 11.2% between 2010 and 2020 (according to U.S. Census Bureau data).
- **Arizona needs between 497 and 667 primary care physician full-time equivalents** to eliminate its current primary care physician shortage.
- **Arizona has primary care shortages** in all counties, with the situation being worst in rural areas.
- **Arizona meets just 8.54% of residents' mental health needs** and has mental health workforce shortages in all counties.
- **In Arizona, there are several counties with few or no obstetric providers**, and nearly half of the women in some rural areas must travel for more than 30 minutes to receive maternity care.
- **The U.S. Bureau of Labor Statistics estimates approximately 195,400 openings** for registered nurses in Arizona from 2021 to 2031.



Information sources (for bulleted list): Center for Rural Health and Arizona State Board of Nursing

Photo: Adobe Stock

UArizona Health Sciences

NEXT-GENERATION EDUCATION



EXPANDING A DIVERSE WORKFORCE

Access to health care services can help prevent chronic conditions, fend off diseases and allow people to live longer with a better quality of life. But approximately 3.2 million Arizonans — nearly 40% of the state's population — live in an area with a health care shortage. Recent research shows that 1 in 5 Maricopa County residents are worried about accessing health care, and the concern is even more dire for people in rural areas.

To address these critical care needs, the University of Arizona Health Sciences launched a new college, the College of Health Sciences, approved by the Arizona Board of Regents in June 2023. Health professions programs will begin matriculating students as early as August 2026.

New Health Professions Programs

In the College of Health Sciences, new student programs will aim to train the next generation of health care professionals and increase access to care across Arizona's diverse communities.

Each of the new health professions programs will create an expanded pipeline of skilled providers to provide greater access to care for patients in Arizona's diverse rural and urban communities.

Expanding Access to Care

Physician assistants, or PAs, are licensed health care professionals who contribute to the primary care workforce by practicing medicine as part of a team. U.S. News & World Report ranks physician assistant at No. 3 on its 100 Best Jobs list.

"PAs play an important role in helping increase access to care for patients," says Kevin Lohenry, Ph.D., PA-C, UArizona Health Sciences assistant vice president for interprofessional education and interim dean of the College of Health Sciences, where the PA program will be housed.

Lohenry notes that physician assistants are increasingly sought to address shortages of health care providers and the maldistribution of specialists in rural areas. In Arizona, almost 95% of the state's physician assistant workforce practice in urban settings, according to the Center for Rural Health at the Mel and Enid Zuckerman College of Public Health.

The physician assistant program will be designed with an emphasis on rural primary care medicine. For example, medical Spanish will be a part of the curriculum to prepare students to serve Spanish-speaking patients throughout Arizona.

"As we build this program, we are excited to work with community partners in recruiting students from those areas of need, preparing them to



Christine Childers, founding director of the UArizona College of Health Sciences' Doctor of Physical Therapy program

practice patient-centered, team-based medicine, and supporting their eventual return to those communities as licensed PAs," Lohenry says.

Training a New Quality of Professional

Unlike some health care professions, physical therapy is not facing a major workforce shortage at the national level. However, Arizona has fewer physical therapists per 10,000 residents than the national average — and many of the state's physical therapists are in urban areas, which does not meet the needs of Arizona's rural communities.

And Tucson faces an additional issue: Its population of individuals over the age of 65 is higher than the national average, resulting in additional clinical needs in the areas of cardiopulmonary care, geriatrics and neurology. Currently, there is a lack of physical therapists with advanced certification in these areas, says Christine Childers, PT, Ph.D., founding director of the Doctor of Physical Therapy program in the College of Health Sciences.

"The goal of our program is to really tap into clinical affiliations and service learning, particularly in underserved communities, and get our students passionate and interested in serving in the communities that have a need for them," Childers says. "We want students to be hands-on and helping people from day one."

Service-learning opportunities could include running an exercise program at an assisted living facility, working with after-school programs or providing riding therapy for individuals with special needs. Other experiences could include taking vital signs at a mobile health clinic or any number of interprofessional education experiences with students in any of the five UArizona Health Sciences colleges. ♦

Accreditation

Physician Assistant Program

The University of Arizona Physician Assistant Program has applied for Accreditation - Provisional from the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). The University of Arizona PA Program anticipates matriculating its first class in August 2026, pending achieving Accreditation - Provisional status at the March 2026 ARC-PA meeting. Accreditation - Provisional is an accreditation status granted when the plans and resource allocation, if fully implemented as planned, of a proposed program that has not yet enrolled students appear to demonstrate the program's ability to meet the ARC-PA standards or when a program holding Accreditation - Provisional status appears to demonstrate continued progress in complying with the standards as it prepares for the graduation of the first cohort of students.

Physical Therapy Program

Graduation from a physical therapist education program accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) is necessary for eligibility to sit for the licensure examination, which is required in all states.

UArizona is seeking accreditation of a new physical therapist education program from CAPTE. The program is planning to submit an Application for Candidacy, which is the formal application required in the pre-accreditation stage, on Dec. 1, 2024. Submission of this document does not assure that the program will be granted Candidate for Accreditation status. Achievement of Candidate for Accreditation status is required prior to implementation of the professional phase of the program; therefore, no students may be enrolled in professional courses until Candidate for Accreditation status has been achieved. Further, though achievement of Candidate for Accreditation status signifies satisfactory progress toward accreditation, it does not assure that the program will be granted accreditation.

Candidate for Accreditation is a pre-accreditation status, awarded prior to enrollment of students in the professional phase of the program, which indicates that the physical therapy education program is making satisfactory progress toward and is likely to attain full accreditation. All credits and degrees earned and issued by a program holding candidacy are considered to be from an accredited program.

Anyone wishing to make a comment or complaint regarding the UArizona program should contact CAPTE: www.capteonline.org/complaints.



INSPIRING FUTURE

PHYSICIANS

Primary Care Physician Scholarship Program

Arizona has the unique distinction of being one of the fastest-growing states in the country, and the number of primary care providers has not kept pace with the growing demand. The University of Arizona Health Sciences is combating this workforce shortage by developing a new generation of primary care doctors through the Primary Care Physician Scholarship program.

The program awards scholarships annually to medical students at the UArizona College of Medicine – Tucson and the UArizona College of Medicine – Phoenix who intend to pursue residency training in family medicine, general internal medicine, geriatric medicine, general pediatrics, psychiatry, obstetrics and gynecology, or general surgery. Each scholarship recipient agrees to practice medicine in a federally designated underserved community for up to four years after graduation and residency training.

Motivating Future Generations

Expectant mother Bre'anca Sanders drove to Koreatown, one of the most diverse neighborhoods in downtown Los Angeles, turned down an alley into a tiny parking lot and walked into a free clinic from the backside of the building. She checked in and sat down in the prenatal waiting room, where she waited for hours.

It was Sanders' first experience with health care in an urban setting.

"I would have to clear my schedule for the whole day," Sanders recalls. "I could be waiting in the clinic for three to five hours, despite having an appointment. I would look around the room and see the burden this was putting on a lot of the other women, especially those that could be losing wages or risking their employment due to the inconsistent appointment durations."

A self-described "military brat," Sanders was used to the comprehensive coverage provided by TRICARE, a health care program of the U.S. Department of Defense Military Health System. But while living on her own as an expecting mother, she decided to go on Medicaid to lower her out-of-pocket costs.

"There was only one physician for prenatal care and one for pediatrics," Sanders says. "I know there was only so much each of them could do. That experience showed me there needs to be more physicians in urban areas."

Sanders gave birth to a daughter, Londyn. Now, five years later, she is on her way to becoming a physician as a recipient of the University of Arizona Health Sciences Primary Care Physician Scholarship.

(L) Bre'anca Sanders, recipient of a UArizona Health Sciences Primary Care Physician Scholarship
(R) Sanders and her daughter, Londyn
Photos provided by Sanders



Sanders witnessed other health struggles in her family. Her father was diagnosed with colon cancer, a disease his grandmother had also had, shortly after his release from prison. Colon cancer is highly preventable with regular screenings, but the warning signs of his cancer were missed before and during his incarceration.

"For too long, his needs were not taken seriously," Sanders says. "I am committed to changing the accessibility for those who need it most."

Sanders is hopeful that her personal journey and work experiences will mold her into the type of physician needed in today's health care setting. Her goal is to build meaningful relationships with patients from vulnerable communities, essentially shifting the paradigm for inner-city health care.

"My hopes are that this scholarship will allow me to become a physician and show Londyn that following your passion pays off," Sanders says, referring to her daughter. "She aspires to be a scientist, so I want to emulate a positive journey for her." ♦

A Curiosity for Science

Becoming a physician has long been a goal for Sanders, who has no shortage of experience with health concerns in her family. An honors student in high school, Sanders found herself dozing off in class and noticed she was not feeling like herself. She became concerned enough to see a doctor, who brushed aside her worries. But Sanders knew something was not right. She implored her mom to take her back.

Doctors eventually diagnosed Sanders with hypothyroidism, a condition in which the thyroid gland doesn't produce enough of certain crucial hormones. Unsure what might have caused the condition, they also ordered an MRI.

"It turned out I had a brain tumor," says Sanders, who no longer has hypothyroidism. "My mom freaked out when she heard the doctor tell me. Fortunately, I never needed surgery, and the tumor is under control. It doesn't affect me anymore."

From that experience, Sanders realized two things: the importance of being an advocate for her own health and her growing passion for science.

"One of the big reasons I was motivated to become a doctor was the science aspect of it," Sanders says. "I liked the idea of using science to figure out what is going on."





FILLING THE NEED FOR HEALTH PROFESSIONALS

Arizona Area Health Education Centers Program

Access to health care is a right, not a privilege, yet millions of Americans can't obtain health care services that prevent, diagnose and treat diseases and that address the social determinants that impact health.

Almost 100 million Americans live in a designated Primary Care Health Professional Shortage Area, defined by the federal Health Resources and Services Administration as areas and populations with a shortage of primary care physicians relative to the population. In Arizona, more than 3.3 million people live in Health Professional Shortage Areas.

Since 1984, the Arizona Area Health Education Centers (AzaHEC) Program has served the state through health professions workforce training, recruitment and retention in rural and medically underserved communities.

Enhancing Access to Quality Health Care

Each year, future physicians, nurses, pharmacists,

dentists, phlebotomists, physician assistants, physical therapists, public health professionals and more participate in community-based experiential training thanks to AzaHEC. From July 2021 to June 2022, nearly 1,500 students and residents representing close to 40 universities and residency programs participated in more than 3,000 field experiences in Arizona, with 75% indicating that the rotation increased their likelihood of practicing in a rural or medically underserved area.

"My rural medical experiences have been vital in preparing me to be a competent full-spectrum family medicine physician," says Amanda McKeith, MD, a resident in the UArizona College of Medicine – Tucson's Department of Family and Community Medicine. "When your community has limited access to resources and specialists, patients depend on family medicine doctors to provide them with the care they need. My rural rotations ensure I develop these necessary skills. Where else can you learn to deliver a baby, perform a post-partum tubal [ligation], admit a patient to the ICU and perform a shoulder reduction — all in one day?"



Six AzAHEC Regional Centers enhance access to quality health care, particularly primary and preventive care, by improving the supply and distribution of health care professionals through academic-community educational partnerships in rural and urban medically underserved areas as part of the Federal Area Health Education Program.

A History of Developing a Diverse Health Care Workforce

It has been nearly 80 years since the conclusion of World War II on Sept. 2, 1945, yet the war's legacy lives on, particularly in the field of health care. The scale and intensity of the war catalyzed medical innovation, while postwar conditions stimulated the expansion of employer-based health insurance.

The explosive population growth seen during the baby boom from 1946 to 1964 added 76 million people to the U.S. population. Congress, concerned there would not be enough health professionals to care for the growing population, authorized the Area Health Education Centers program in 1971 to recruit, train and retain a workforce of health professionals committed to rural, underserved populations.

Fifty years later, the need continues. There are now 56 AHEC programs and 235 regional centers in the U.S., including six in Arizona. In the last fiscal year, the AzAHEC Program and the AzAHEC Regional Centers provided 12% of the community-based health profession training rotations reported by the national AHEC programs.

"Interprofessional, community-based experiential training rotations are vital to improving access to health care for all Arizona residents, especially those living in rural and urban underserved areas," says Daniel Derksen, MD, senior adviser and principal investigator of the AzAHEC Program and UArizona Health Sciences associate vice president for health equity, outreach and interprofessional activities.

"The first Arizona AHEC Regional Center opened in Nogales in 1984," he continues. "By 1989, we were serving all 15 Arizona counties through five regional centers. [In 2022], we expanded to six with the addition of the American Indian Health AHEC Regional Center."

Training Providers for Culturally Appropriate Health Care

The American Indian Health AHEC Regional Center, a collaboration with the San Carlos Apache Healthcare Corporation and Gila River Health Care, is implementing education and training to improve the supply and distribution of health care professionals in tribal communities. It works with many of the 22 federally recognized tribes in Arizona.

"Tribes in Arizona experience a serious shortage of health care professionals compared to other regions in the state," says Leila Barraza, JD, MPH, director of the AzAHEC Program and associate professor of community, environment and policy in the Mel and Enid Zuckerman College of Public Health.

On July 1, 2022, the American Indian Health AHEC Regional Center joined five existing AHEC regional centers in Arizona: the Central Arizona AHEC, the Colorado Plateau Center for Health Professions, the Southern Arizona AHEC, the Center for Excellence in Rural Education and the Western Arizona AHEC.

Each year, the AzAHEC Program and Regional Centers partner with the nine Rural Health Professions Programs based in Arizona's three public universities – UArizona, Arizona State University and Northern Arizona University – as well as professional organizations and communities to provide a variety of training and educational events. ♦



ADDRESSING THE

NURSING SHORTAGE

The University of Arizona College of Nursing has been transforming nursing education, research and practice to help people build better futures for more than 65 years. Consistently ranked among the best programs in the nation, the college is strengthening health care's largest workforce and the public's most trusted profession through its undergraduate and graduate programs, offered online and on campus in Tucson and Gilbert, Arizona.

The college continues to address the challenges of Arizona's nursing shortage and what the U.S. Bureau of Labor Statistics estimates will be 195,400 openings for registered nurses in the state from 2021 to 2031.

Cutting-Edge Education

If you walk past the lush vegetation and calming fountain in the courtyard and enter the main lobby of the UArizona College of Nursing in Tucson, you will come face to face with a wall of history and accomplishments dating back to 1957.

The faces of previous deans, faculty, staff and students have been ensconced along the facade, archiving several generations of Wildcat nurses who walked the corridors, participated in real and simulated trainings, and graduated to make their marks on the world. The College of Nursing, like Arizona itself, has grown, and with its new dean,

Brian Ahn, PhD, the college will continue to expand its mission.

"Over the next five years, our class size is projected to grow by approximately 400 students, culminating in an overall increase to 1,000 students per year, which will help ease the national nursing shortage," Ahn says. "Additionally, we are in the process of establishing a new BSN-Integrative Health program in Tucson, specifically designed to cater to the needs of rural underserved populations."

Currently, the College of Nursing's Gilbert campus is home to the nation's only Bachelor of Science in Nursing with an integrative health focus.

With key strengths in integrative health, cancer prevention and survivorship, and nursing informatics, the college has more than 7,000 alumni worldwide promoting health and wellness in their workplaces and communities.

The dean also says the college will emphasize cutting-edge education and work on establishing the Center for Health and Technology to facilitate nursing-engineering technology approaches and improve the reach of evidence-based interventions.

"We will equip students with the fundamental nursing skills and the ability to adapt to technological advancements and interdisciplinary collaboration," he says.



New Learning Opportunities

Since 2019, the College of Nursing has occupied the third floor of the University Building in downtown Gilbert. It recently expanded to another floor, doubling its space to a total of 35,000 square feet to welcome students in the College of Nursing's Master of Science – Entry to the Profession of Nursing (MEPN) program. The space is equipped with an eight-bed skills lab and a nursing simulation suite designed to replicate a hospital patient-care setting. The melding of the BSN-IH and MEPN programs in the same building will help educate and train new generations of Wildcat nurses needed to fill nursing shortages.

"Master's-level education strengthens the workforce by enabling nurses to lead health care teams to improve patient and population health outcomes in Arizona," says Kelley Miller Wilson, DNP, director of the MEPN program. "These nurse leaders will provide excellent evidence-based nursing care and potentially use their graduate education as future faculty members to teach the next generation of nurses."

Accelerating Degree Completion

Nearly 160 students at the College of Nursing will be able to accelerate completion of their studies thanks to a share of \$43.1 million in funding provided to five Arizona nursing programs by the Arizona Department of Health Services. The College

of Nursing used the funding to distribute 158 scholarships that cover the cost of tuition and fees incurred by students while completing the college's MEPN program.

The ADHS provided the funding for scholarships in programs designed to allow students to complete entry-level nursing degrees in 12 to 18 months. Recipients agreed to practice nursing in Arizona for at least four years upon completion of their degrees.

A Passion for Nursing

Clarissa Padilla, a senior in the bachelor's-level integrative health pathway, has known since she was a child that she wanted to be a nurse. Her mother, who worked in pediatric nutrition at a hospital, would occasionally take Padilla to work with her during an emergency run.

"We would go to the nursery and postpartum unit, and she would leave me at the front window observing the nurses doing their assessments on the newborns," Padilla says. "It was at this young age of 5 to 7 years old that the passion of nursing was born in me. My mom always thought that I would outgrow it, but I never did."

In 2022, the fall semester of her junior year at UArizona, Padilla was accepted into the College of Nursing's program in Gilbert.

"When I arrived to the Gilbert campus for Level 1 orientation last year, I knew that this is where I was meant to be," Padilla says. "I was so excited to get my badge and my red clinical nursing bag with supplies and equipment."

Padilla is more than halfway through her nursing preceptorship in the observation unit at Banner – University Medical Center Phoenix, where she works the night shift. She is also attending school and working in the simulation lab as a student employee, and she is going to begin tutoring Level 2 students soon.

"I believe in giving back and paying it forward for our future nurses. One day, I hope to also become a nurse practitioner and nursing educator," she says.

"One of the reasons that I'm so passionate about nursing is because not only do you have to be book smart, but you need to have the personality and unconditional passion for caring for others at a vulnerable time of their lives. Nursing is an ever-evolving science, and it's a career that I know will keep me on my toes, always learning and growing as a health care professional." ♦



SIMULATION FOR THE FUTURE

The future of modern health care simulation and training can be summed up in two words: artificial intelligence. Technological advancements have dramatically changed the way simulation is used to teach and train aspiring health care providers, and AI will be no exception. As AI continues to rapidly evolve and become a part of everyday life, its application in health care simulation will also become commonplace, just as other technologies have become standard in recent years.

The Arizona Simulation Technology and Education Center (ASTEC) is adapting to the changing health care landscape to train the next generation of providers. Allan Hamilton, MD, ASTEC's executive director, discusses how health care simulation has evolved, how AI can best be implemented, and what is next for simulation in educating the next generation of health care professionals.

Educating with Artificial Intelligence

Hamilton: We have more technology available now than ever before. We use augmented reality, mixed reality, immersive reality and high-quality haptics. There really is this profusion of technology which may, to some extent, improve our educational outcomes. But I look forward to fine-tuning simulation with AI.

From an education and training perspective, it is hard now for one of our students to be able to intercept and see everything from start to finish for a particular patient. That is where medical simulation is really a strength, because we can go back and teach what may have been missed in the clinical experience for a student. If a student didn't see a heart attack case when they were in the unit, we can simulate one.

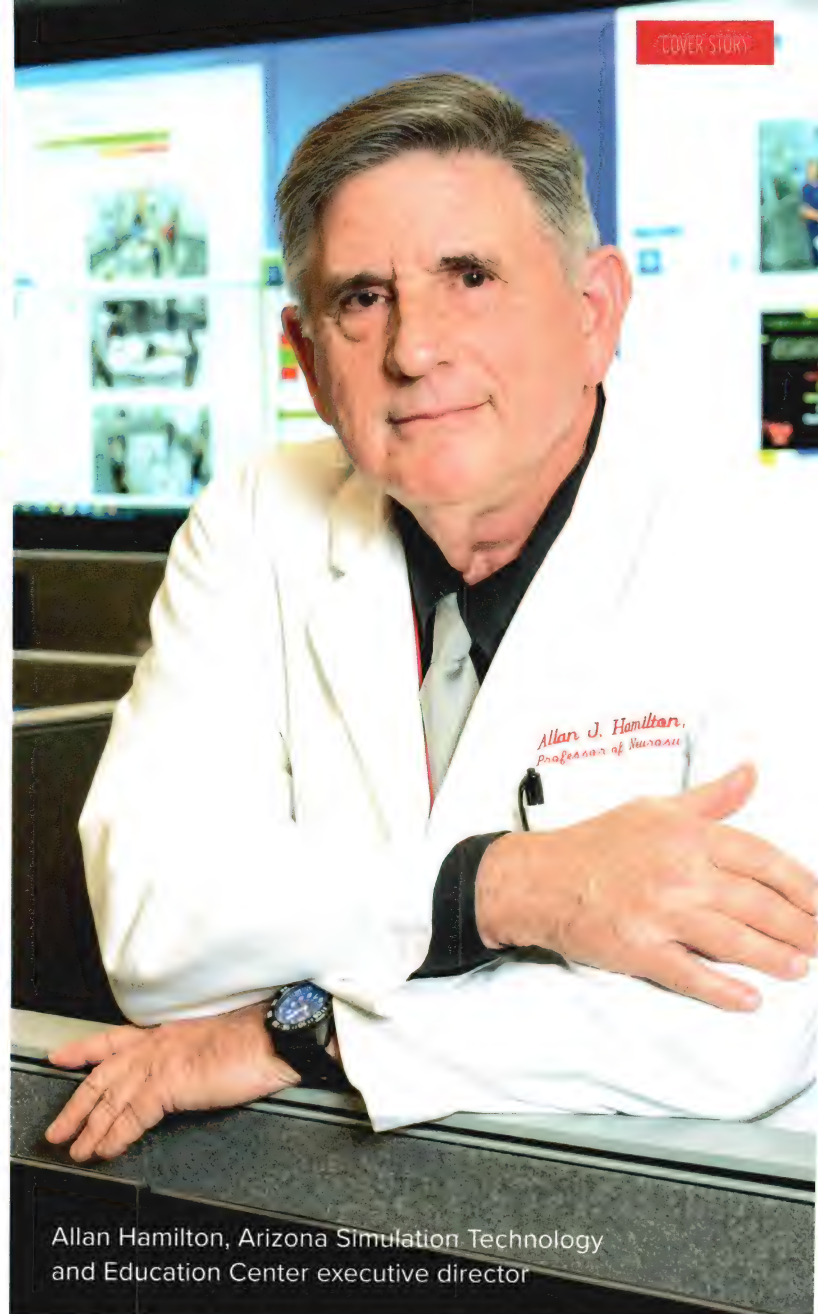
So, in a sense it has evolved to a point where it allows us to standardize things and consider problems of patient continuity. For us at ASTEC, our



education gets divided into procedural-based training, scenario-based training, and then interprofessional education and leadership.

Every single problem that we've had in medicine is only getting worse. Shortages of personnel are continuing, patients are being moved through the system faster and faster to maximize profitability, and there is much more outpatient care than we ever had before. The breakup of continuity in patient care doesn't provide enough range for us to teach students. Back when I was training, I might see 100 cases of certain types of patients. Now, they might not see any, or only a couple, of a certain patient. Medical simulation allows us to create those patients and those scenarios.

We are really starting to look at, "How do we turn out the ideal health care provider?" — whether that is a doctor, nurse practitioner, nurse anesthetist, physical therapist or nurse-midwife. More and more of what we're looking at is, "What are the things that we can do in a sim lab where we have a lot more control?" We



Allan Hamilton, Arizona Simulation Technology and Education Center executive director

are looking to see where we can take the guesswork out, where we can take the subjectivity out.

This allows us to better calibrate the education process and vary it from individual to individual. We want simulation to work on everything, but one student might be very gifted with their hands, and another might be gifted with their recall. As trainers, it is important we make that distinction, because we have different tools that help students work on different things.

The last part of this is that the processes we can simulate allow for the patient to have the absolute safest experience. Our goal at ASTEC is to look toward a world in which no one suffers an avoidable medical adverse event. That's our goal, and to achieve that, we have to stay at the top of our game now and in the future. ♦



INNOVATIVE CARE FOR

AGING POPULATIONS

The World Health Organization estimates that 1 in 6 people globally will be aged 60 or older by 2030, and the number of people aged 80 or older will triple between 2020 and 2050. In Arizona, 1.5 million residents are over the age of 60, and nearly 1 in 4 are 65 or older. As these demographic changes occur, new challenges must be addressed to meet the needs of the aging population.

A new master's program developed by UArizona Health Sciences International and offered through the UArizona Graduate College and Arizona Online aims to develop a workforce to address the challenges created by demographic shifts in Arizona and around the world. Designed for students and professionals, the program will prepare an emerging generation of health care and other professionals to meet the needs of an increasingly aging population.

Learning to Care for Aging Populations

It was a stunning lesson in aging. But a useful one. At age 10, Jeannie Lee noticed the signs of dementia in her grandmother, Jong-Min Noh. Jong-Min did not recognize her own daughter. Or, later, her son.

"I was shocked," Lee recalls. "I knew Alzheimer's/dementia was setting in for her."

They all lived together in their South Korean city, and Lee pitched in to help manage her grandmother's care. Lee bought a notebook, learned how to measure blood pressure, and created neat rows and columns to keep track of Jong-Min's daily levels along with notes on medicines for several illnesses.

That was Lee's first step on the road to innovation.



Today Lee, associate dean at the R. Ken Coit College of Pharmacy and an associate professor of pharmacy, will require her students to follow suit in a new Master's of Science Program called Innovations in Aging.

Lee obtained a doctorate in pharmacy with a residency at the VA Medical Center in Washington, D.C. When she entered health care studies, her experience with her grandmother motivated her to work with older adults. "I wanted to assist in any way that I could," she says, "to protect their memory, their dignity."

Lee has helped create the new Master of Science curriculum to teach younger generations to be creative in their own ways. A key driver of the program has been Linda Phillips, a registered nurse, who is chair of the interdisciplinary program and a professor emerita in the College of Medicine.

Several years ago, Phillips observed that there was a burgeoning group of older people who were

finishing careers from engineering to business to medicine to architecture and ready to study in a new field. "It was a unique opportunity for younger people to study with older students — in the encore part of their lives, looking for a second career. It was a wonderful opportunity for the university, too," Phillips says.

And these older students, she says, can create change in "a world not designed to be age friendly."

"Educating younger individuals about aging of all persons and meeting the challenges and opportunities of aging moves us one step closer to improving health and well-being for all," Phillips says.

New applicants to the program are coming from across the spectrum of UArizona studies, including pharmacy, nursing, law and nutrition. A few of them come from the Care, Health and Society Program in sociology, Phillips says.

The online Innovations in Aging program is aimed at changing the world of midcareer professionals and students by adding skills in aging to their repertoires.

Increasing diversity in the workforce also is an essential goal of the program, Phillips says, pointing to evidence that Native American, African American and Latino people are severely underrepresented in aging-related fields. Many of these diverse aging populations are growing faster than non-Hispanic white populations.

The master's in aging is open to students with at least a bachelor's degree or graduate status and is offered globally through Arizona Online. Classes were designed with guidance from the Association of Gerontology in Higher Education.

Lee says she will be telling students about her own first experiences with aging, helping her grandmother, Jong-Min.

"We want them all to be mindful of aging populations," Lee says, "so they can innovate within their own professions. And we will empower them."

Appropriate labels are a key part of the coursework.

Says Phillips, "For the last 15 years, 'elder' was a nice word. But now in our culture we are asked not to use 'elder' or 'senior.' They have negative connotations, like 'aging' and 'dying.'"

"Aging does not equal dying. Aging is just a developmental stage. There's nothing wrong with aging, but it should not imply the bitter end."

Today, Phillips says, the preferred term is "older adults."

"I was 78 at my last birthday," she says. "And there's still fun to be had." ♦ — Ford Burkhart



On Their Toes

Volunteers returning from the Peace Corps chart their next steps.

By Ford Burkhart, a Peace Corps volunteer in Malaysia, 1966-68

One came from a rural village in Africa. Another traveled from the urban streets of Querétaro and a third from a remote island in the Indian Ocean.

They joined the more than 425 former Peace Corps volunteers who have returned to the U.S. from places like Benin, Mexico or Madagascar, coming to the University of Arizona thanks to a coveted fellowship that helped them earn their master's degrees.

For more than 25 years, UArizona has ranked

among the top U.S. universities enrolling volunteers who have returned from the Peace Corps in the Paul D. Coverdell Fellows Program, which guides them through graduate work and often into careers in public service.

The program is named for Coverdell, a U.S. senator from Georgia, who directed the Peace Corps under President George H.W. Bush and modernized its mission.

Check out these recent UArizona volunteers' stories.

Rachel Hansen taught middle school in rural Benin. Photo provided by Rachel Hansen



Rachel Hansen '23, volunteer in Benin

When Rachel Hansen landed in rural Benin for her Peace Corps volunteer tour, she found herself surrounded by new languages, like Idatcha and Fon, two of Benin's 60-some local languages.

"I was in the middle of the bush," she recalls.

Benin, a small West African country just west of Nigeria, is known as the birthplace of the respected religious tradition called Vodun and for having had the only all-female army in modern history. Hansen taught English at a middle school in central Benin.

Returning from her two years there, Hansen was awarded a Coverdell Fellowship, part of a national program that provides financial support for volunteers who enroll in graduate study after concluding their service. The volunteers, in turn, participate in an outreach assistantship in underserved communities.

In 2023, Hansen received her master's degree in human language technology, an interdisciplinary field incorporating computational linguistics, natural language processing, computer science and AI.

Her work in Benin, she says, helped her secure a top job at ServiceNow, a leading global software company based in Santa Clara, California, using AI to enhance employee and customer experiences.

"I was competing with software engineers," she says. "What I had was linguistics. And that helped land a job working in a team on AI and language."

In Benin, one of the richest linguistic zones in the world, she was immersed in the field where she found her personal mission. Now, she aims to help create software that will allow native speakers of any Benin language to ask questions on the web and get answers in their own language.

"I love languages and technology, and in Benin I noticed that people who wanted to use smartphones would have to work in French," Hansen says. "It made my heart so sad to think they didn't have the same access I do as an English speaker. My dream is to watch someone from my village use voice technology in their own language."

Brennen O'Donnell '19, volunteer in Mexico

Some days in Mexico, Brennen O'Donnell taught organic gardening in Spanish. Other days, he organized environmental clubs or promoted ways to help people in the city of Querétaro adapt to climate change.

Throughout his two years of evolving assignments as a Peace Corps volunteer, he says, he learned a lot about resiliency by responding to his community. And that, in turn, helped him through a 2019 UArizona master's degree in public administration, which in turn led to a position at the U.S. General Services Administration.



Brennen O'Donnell ran environmental programs in Querétaro, Mexico. Photo provided by Brennen O'Donnell

As an undergraduate, O'Donnell was studying environmental science when he met a recruiter for the Peace Corps. "I heard their sales pitch, and it sounded fascinating," he says. "At first, two years of service sounded like a really long time. But it was definitely worth it."

In 2016, the Peace Corps placed him at Mexico's Secretariat of Environment and Natural Resources, or Semarnat — similar to the U.S. Environmental Protection Agency — working in Querétaro, a history-rich city north of Mexico City.

"In Mexico, the work was all in Spanish," O'Donnell says. "It took a while to get comfortable, but that's all part of the experience. When you are surrounded by the work, you learn fast. And that's one thing I definitely liked: getting used to change."

"In the Peace Corps, you can have an idea, and you say, 'Let's

try this.' And that is what you'll be doing. It teaches you creativity."

After returning from Mexico, O'Donnell qualified for UArizona's Coverdell Fellows Program to earn his graduate degree from the School of Government and Public Policy. His internship took him to work with the Arizona Master Naturalist Association, helping libraries expand programs in underserved areas.

He spotted an ad for a position in Tucson with the GSA Real Estate Division on a Peace Corps job-posting board. Soon, he was on his way. The transition was smooth, he says, because former Peace Corps volunteers enjoy several incentives to enter federal jobs. "If you meet the regulations for a position," O'Donnell says, "the agency doesn't need to carry out a competitive search. They can just hire you. And that helps them, too."

And Peace Corps service

was a natural preparation for his GSA work, O'Donnell says. He learned to adapt quickly to new tasks, for example. "Things change according to the community's wishes, and it teaches you to stay on your toes," he says. "That's part of the experience."

David Morales '23, volunteer in Madagascar

Early mornings, he was up at dawn and prepping to teach English for four hours.

At midday, David Morales would make his lunch of rice and beans with tomato sauce, as would most people in Befandriana-Avaratra, a small town in the island nation of Madagascar, off southern Africa. Next, he would plan out the day's meeting of the English Club — all part of his work as a Peace Corps volunteer from 2016 to 2018.

Aside from teaching English to high schoolers, Morales was

David Morales taught English as a second language in Madagascar. Photo provided by David Morales



educating himself with personal lessons that he'd carry back to the United States — and to UArizona, where he would later complete a master's degree in hydrology with support from a Coverdell Fellowship. It all fit together, he says.

"I learned to have patience by working with local people and to respond to their needs. Our mutual learning went far beyond languages," he recalls.

Using his newly acquired Tsimihety, a dialect of the Malagasy language, he taught at girls' empowerment camps. "We were 'time rich' as volunteers," Morales says, "and I used that time to make connections with my neighbors' lives."

He taught students about the United States as he joined them in activities that were part of their own cultures, like plowing fields and sharing meals. "Walking out to the countryside in search of

fresh mangoes or a missing calf," he says, "we shared our lives and cultures."

He planted a garden to teach nutrition. They showed him how to fish the river with a bamboo pole. Some days he would go up into the mountains by bicycle to visit their homes.

Through those two years in Madagascar, Morales became aware of the many ways of knowing about the world. "What seems obvious to you at first may not be the whole story. In college, you learn 'do homework; take tests.' But in the Peace Corps, you learn that life is not linear; life is something very different."

Back home, he got to thinking more about climate change and scarce water resources, and the hydrology program at UArizona seemed a natural fit. As part of the Coverdell program, he would undertake an outreach internship. Morales was assigned

to UArizona's distinguished Water Resources Research Center, working with its director, Sharon Megdal. "That opened my eyes to collaborative water resource management — to problem solving," Morales says.

Today, in a position with the U.S. Geological Survey, Morales applies various methods of hydrogeologic investigation, including groundwater modeling, in field work across Arizona. Recently, he was part of a team studying the geologic components of the Douglas basin in southeastern Arizona, using skills like controlled source audio-frequency magnetotellurics.

His internship was a key, he says. "It gave me opportunities to explore the world beyond my studies." ♦

The Hummel family
Photos provided by
the Hummels



ENGINEERING BETTER OUTCOMES

One alumni couple gives to honor those who helped them and to create a brighter future for cancer patients.

By Kim Stoll and Katy Smith

Mike '82 and Sheri Hummel '82 know the impact cancer can have on a person's life.

Because of her family history, Sheri knew she was at high risk for breast cancer. That's why, after reading an article on the topic in Arizona Alumni Magazine in 2006, she sought out the high-risk clinic offered by Setsuko Chambers, director of women's cancers at the University of Arizona Cancer Center.

"I was always amazed how much time they would spend with me when I didn't have cancer," Sheri says. "I drove down and saw them the entire day."

After seeing Chambers and her team once a year for testing over 18 years, Sheri was diagnosed with very early stage breast cancer in 2021.

"I was told without those tests I would have gone another two years without a diagnosis. Now, I'm cancer free," she says.

"In two more years, who knows what the treatment and outcome would have been. I don't think it's hyperbole to say that process might have saved her life," Mike, her husband, says.

Inspired by their experience, wishing to help others mitigate cancer, and hoping to change the way the disease is fought, the Hummels have committed \$5 million to benefit the Cancer Engineering Initiative, a collaboration between the College of Engineering and the Cancer Center. The initiative aims to create humanlike cancer models and growth environments to improve prevention, diagnosis and treatment.

"For part of our gift, we also wanted to support the high-risk clinic, as well as Dr. Chambers' research at the College of Medicine – Tucson," Mike says.

"We're interested in helping to make fundamental changes in how cancer is detected, treated and understood," Mike explains. "When we talked to Dean David Hahn about cancer engineering, we became excited to participate in a way that we hope really can make a lasting and long-term difference."

The Hummels were high school sweethearts who grew up in Tucson. They laugh together over memories of competing against each other for better grades in English class, where they first met. They are Wildcats



Mike
and
Sheri
Hummel

through and through, and their two sons — Ryan '09 '10 and Kevin '10 '14 — also graduated from the university, Ryan with degrees in civil engineering and Kevin from the College of Medicine — Tucson.

"Since the gift benefits both engineering and College of Medicine, it includes all four of us," Sheri says.

Sheri earned her degree from the College of Education and worked as a first-grade teacher, while Mike's background is in electrical engineering. In 2022 he was honored as the College of Engineering Alumnus of the Year.

"Engineering is really about solving problems," he says. "To apply an engineering approach to solving the problem of cancer is both exciting and consistent with the way I approach issues.

"This field is in its infancy, and a lot of work and resources will have to go toward making it successful — not just at the UA but nationally."

Last year, the Hummels attended the Cancer Engineering Symposium, which brought experts together to share strategies and build community.

"We couldn't help but be struck by how passionate people were, the ideas they had, and that it truly could be something that moves the ball forward when it comes to cancer diagnosis and treatment," Mike says. "We wanted to do something to start that process, encourage additional funding and encourage people to participate in it."

The Hummels describe themselves as fortunate to be in the position to give generously, and they credit their UArizona educations for the success they've seen in their careers.

"For us not to help others seems selfish and would represent a lost opportunity," Mike says. "It seems a shame to not give back to the community that helped make you successful if you have the ability and capacity to. We believe strongly in that, and our children believe strongly in that."

"We've had a lot of family and friends deal with cancer," Sheri adds. "It's been a part of my life since childhood. If we can do something to help in the future, we want to." ♦

UArizona's wheelchair tennis program was the first at a U.S. college. Photos: Chris Richards

ARIZONA

WHEELCHAIR TENNIS



THE TEACHING GAME

Player-coach relationships define the first 25 years of UArizona wheelchair tennis. | By Matthew Morris

On a bus in England in 2016, wheelchair tennis pro Bryan Barten '99 '02, then about 40 years old, met the coach who would alter the spin of his career. At the time, Barten was contemplating retirement — as he puts it, “not playing so much,” slowing down from a life on the sport’s world tour.

Joop Broens, though, had other ideas.

The two, Barten recalls, “just hit it off,” and Broens, who’s from Holland, invited him to hit some balls. “He started showing me some tricks and some skills,” Barten says — and soon, they were training together in Europe, working hard to maximize Barten’s potential as a quadriplegic professional athlete.

In 2018, Barten, a little older and his game refined, defeated the No. 1 player in the world in the finals of the Georgia Open. Across two decades as a pro, Barten has competed in three Paralympics for Team USA, broken into the world’s top five and captured 89 titles in singles and doubles combined. But the Georgia Open win, he says, was his biggest.

And his coach’s imprint, he feels, was all over the result.

“I give the credit to Coach Broens — I wouldn’t have been able to do it without him,” Barten says on a sunny, mild winter afternoon at the University of Arizona’s Robson Tennis Center. “Coaches don’t get a lot of credit. They get blamed for losses, and the player gets the credit for the win.”

He knows from experience: Since 2007, Barten has coached the university’s wheelchair tennis team while maintaining his standing as one of the best players in the game. The team he helms is the nation’s first and oldest at a college or university — 25 years old this spring, to be precise, exactly half the age of the UArizona Adaptive Athletics program. It’s captured multiple national championships, was the first to offer scholarships in the sport and has helped develop five Paralympians beyond Barten.

Barten came to Tucson in 1997 and enrolled at the university in 1998, three years after breaking his neck

in a car accident in Michigan, his home state. He was a backseat passenger, and the wreck left him with at least partial paralysis in all four limbs. Before his injury, Barten had been an athlete all his life. He had played basketball in high school.

He came to the desert for the weather — no longer would he need to push his wheelchair through snow — and the university's offerings in adaptive sports. But there was no wheelchair tennis team then, only wheelchair rugby, basketball and track. He'd started playing the sport back home and wanted to get serious.

"Hey, can we do tennis?" he remembers asking then-director of adaptive athletics Dave Herr-Cardillo. Herr-Cardillo's answer: "Sure."

Barten played for the newly formed team until 2002, when he earned his master's degree in rehabilitation counseling. He then worked for the Disability Resource Center for five years, helping ensure accessibility at the university for students with disabilities. But in 2007, Herr-Cardillo asked Barten to

become the coach of the tennis team.

"I fought that for a while, but he insisted that I change my profession. And I thank him every day since then, because it's been a great job," Barten says. "The relationships, the opportunity that we were able to provide to people through tennis — and just to see what that turns into for people in their lives — is amazing. Way bigger than tennis, what we're doing here in these last 25 years."

Not to mention that Barten has become for other players what Broens was for him: The coach with the bag of tricks. Someone who makes the previously out-of-reach feel achievable.

Among Barten's current acolytes: Den Baseda, who is pursuing his master's in biomedical engineering.

Baseda, in contrast to his coach, did not choose the university to compete; instead, he's here on a Peace Corps Coverdell Fellowship, which defrays the cost of graduate studies for returned volunteers. Baseda served in Namibia from 2014 to 2016, teaching math and



Eric Court



Den Baseda



Court ranks among the top 100 players in the world for his classification.

science. He then returned to his adoptive hometown — Charlotte, North Carolina — to assist refugee youth as a member of AmeriCorps.

Baseda's Indigenous family of 10 arrived from Vietnam when he was 13, moving into an apartment of three bedrooms and one and a half baths in the immigrant neighborhood of Green Oaks. His father would talk about needing more space for everyone and not having the money. But after two years, the family moved into a home provided by Habitat for Humanity, with room enough for all. The experience changed Baseda, 36, who today speaks not about what he lacks — all muscle function in his right leg and some in his left, for instance — but about what he has been given.

"Ever since then, I made it my life goal to be able to continue to help as much as I can, anywhere and everywhere I can," he says. "Every two years, my hair will grow long enough for me to donate it to Wigs for Kids and Locks of Love, which make wigs for cancer patients. People may not realize it, but every little bit does help, especially for a family that has gone through so much."

Baseda is competing for both the wheelchair tennis and the handcycling team while pursuing his degree. Barten says Baseda shows a drive to improve that reminds him of himself. He mentions a Sunday night in January when the temperature was just 37 degrees. The team didn't have an official practice that evening, but an assistant coach spotted Baseda on the court. The assistant took a picture and told Barten, who sent his player a quick text: "This is what we like to see."

"He's one of those guys that has the heart," Barten says. "I don't know where it's going to take him, but with

that kind of drive and passion, he can go anywhere he wants."

Baseda played tennis with his brothers and sister as a kid. Back then, he used crutches on the court, diving and then pushing himself back up if the ball was beyond reach. So, last fall, Barten spent a couple of weeks just showing him how to move in a wheelchair.

Baseda doesn't take his coach's willingness to help for granted. "He's always like, 'Hey, I see the eagerness. I want to help you get there,'" Baseda says. "Coach Barten's really important, being that he's always there."

Baseda knows that honing his game will take time and repetition, and that truth doesn't seem to faze him. "I can't just go from 1 to 10," he says. "You've got to take it a step at a time." And for both him and his coach, the meaning is in the journey — in the quiet hours spent hitting ball after fuzzy yellow ball, hoping to get a little better with the racquet and chair than they've been.

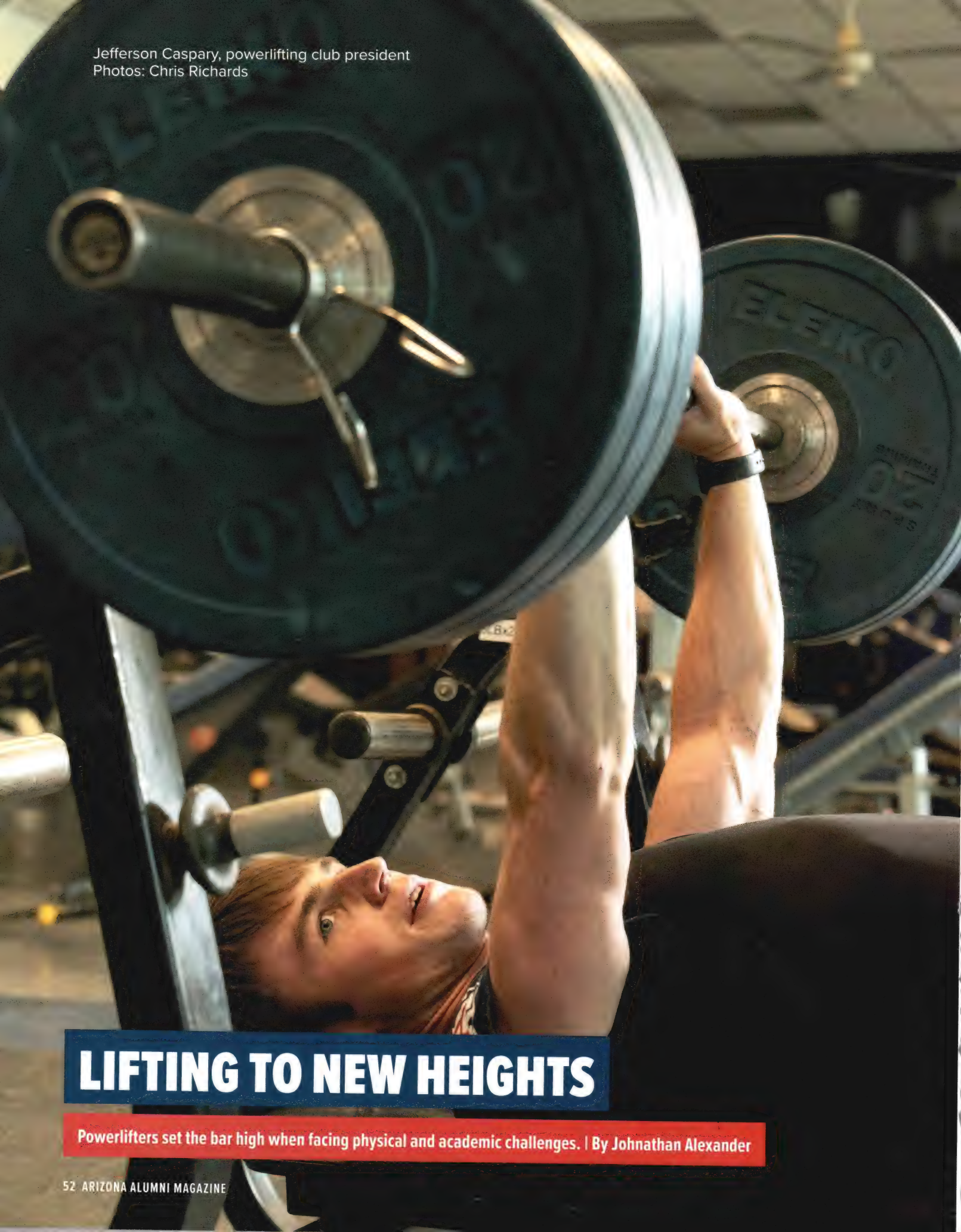
It's what's kept Barten in the sport all these years — long past the time when he pondered retirement, long past the time when his coach stepped in, allowing him to get where he once couldn't.

"I've been playing for 20 years, and I'm still learning," Barten says. "Constantly learning in this sport — learning about myself, learning about the game. The game constantly shows you new things. But that's what I love about tennis. You're never done with this sport. The training that I've gone through in my life — I didn't realize it when it was happening, but I'm using all the stuff that I learned from my coach." ♦

Support UArizona Adaptive Athletics at give.uafoundation.org/wheelchairtennis.



Baseda and
Adam Finney

A close-up, low-angle shot of a young man, Jefferson Caspary, lying on a bench press. He is looking up at the heavy barbell he is lifting. The barbell is loaded with large black weight plates, some of which have "ELETKO" and "25" printed on them. The background is a blurred gym setting with other equipment.

Jefferson Caspary, powerlifting club president
Photos: Chris Richards

LIFTING TO NEW HEIGHTS

Powerlifters set the bar high when facing physical and academic challenges. | By Johnathan Alexander



For Jefferson Caspary, president of the University of Arizona Powerlifting Club, the humbling first-day experience is one of the best parts of the club. “Realizing you’re not the best at something is awesome,” he says, “because you allow yourself to do things that can help you get better.”

Cameron Klaudt, the club’s vice president, agrees, remembering his first training session. “I came into the club thinking ‘I know powerlifting; I know this’ — and then you learn something new and just keep building your knowledge.”

Seasoned powerlifters can lift many times their body weight — up to eight times their body weight for men and seven times for women. Members of the club maximize strength in three main lifts: back squat, bench press and deadlift. Occasionally, well-known powerlifters in the community meet with the club, sharing their own lifting experiences. Club members say they find those meetings invaluable and a positive sign of the club’s growth.

Caspary and Klaudt recount the club’s rough beginnings. After failed starts in 2016 and 2018, a small

group of dedicated lifters, led by founding member and current graduate student Brenn Balone, restarted the club in early 2019, to great success. Then the coronavirus pandemic hit, and their efforts began to fall apart. Months later, Caspary started his first semester at the university — right in the middle of the pandemic — and a member invited him to join the club.

The small club of dedicated members met over Zoom, and Caspary remembers waiting weeks before he could attend his first in-person training. “We never really had that many members, but it allowed us to focus on the members we did have,” he says. “I was learning a lot.”

Klaudt joined the club during a period of his life he describes as “stagnant.” He was the only first-year student in the club at the time, and being a part of it helped him find a home at the university. Today, as a junior, he laughs at how his constant questions had started to wear on the club’s senior members. Now, he’s able to mentor younger lifters. “I see a lot of them in my shoes,” he says. “They don’t have an activity, something to do besides classes. I’m trying to help them find that community.”



Madison Schulz is a physiology and medical sciences major who joined the club shortly after Caspary. She says she joined for the environment and the chance to train seriously. The pandemic shutdown prevented her from lifting and working out, a pastime she had enjoyed since high school. Then she discovered and was inspired by Daniella Melo, a young, medal-winning powerlifter who has competed in the World Games and set multiple records for women in her weight category.

"She single-handedly got me into it," Schulz says.

Being a part of the Powerlifting

Club has supported her growth as well. "No one can control the results besides you," Schulz says. "There are times when I catch myself slacking and know I need to step it up and other times when I feel proud for completing tough sessions."

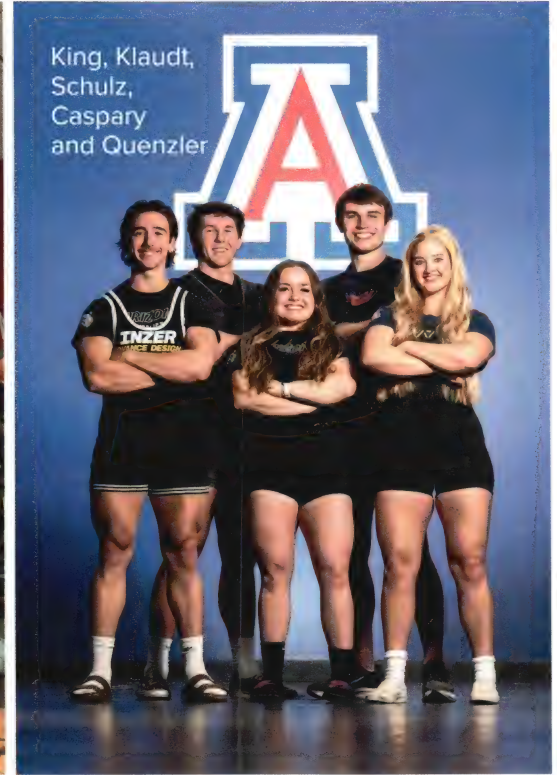
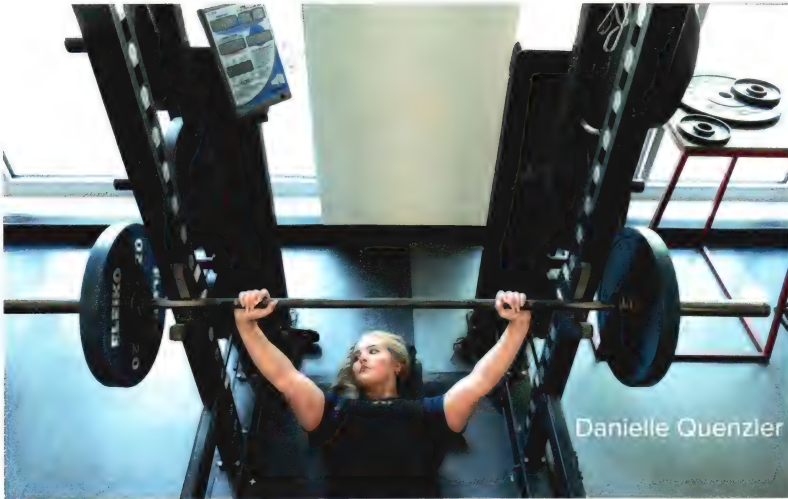
Today, the club has made its way to post-COVID success. Membership doubles each year, and there are now nearly 70 members. Participation is healthy, with about half of the members attending weekly meetings at a local gym, Tucson Strength.

The club competes in meets and is planning to host an official powerlifting meet at UArizona. Caspary, Klaudt and

Schulz, who have all competed, help get interested members competition ready. They host mock powerlifting meets that also include lifters from Grand Canyon University, Arizona State University and Ottawa University. The mock meets help lifters experience the rules and regulations of an official meet.

"It's easy to forget regulations when you're putting in maximum effort. Your mind just isn't focused on that," Klaudt says. "It seems simple, but it's a good experience for people to learn."

"It sucks when you get a 'no lift,'" Caspary adds, referring to an attempt disqualified by a referee for a rule



violation. "But it's really one of those things where it happens once, and you figure it out."

In addition to practice, the club's members also perform volunteer work. Recently, they partnered with Tucson's Sanctuary Project to host a community service event, Lift Heavy Love Dogs, at Tucson Strength, raising \$4,000 for the no-kill animal rescue movement.

To build club membership, Caspary and Klaudt recruit at the Campus Recreation Center, often finding lifters who are unaware that the club is open to all. "I've had a lot of people tell me 'I didn't think I was good enough,'" Klaudt says. Just the opposite is true —

no trial or qualifications are necessary. The club welcomes new faces and offers a supportive community, something Klaudt calls a favorite component of powerlifting.

"There are so many people with similar mindsets that love to support you," he says. "They aren't just there to lift; they're there to see you succeed."

Caspary says members of the club are self-motivated and that most members challenge themselves outside of powerlifting as well. There are members pursuing all levels of degrees and in a variety of programs, and experienced powerlifters will often share bits of academic wisdom as well

as their lifting knowledge. Klaudt, for example, who plans to be a physical therapist after earning a biomedical science degree, receives guidance from another club member who is already a physical therapist. They are all there to support each other.

"If they're doing tough things in the weight room," Caspary says, "they're probably doing tough things in the classroom." Facing challenging work alongside peers who can relate to the difficulties both in and out of the weight room is motivating, he adds. "It makes you want to get better." ♦

OLD MAIN

Arizona Athletics Director
Desireé Reed-Francois
Photos: Arizona Athletics

A 'HEART MOVE'

Desireé Reed-Francois returns to the place that 'extended a compassionate hand' in a time of need.

By Matthew Morris

As of Sept. 10, 1994, Desireé Reed-Francois '97, a former collegiate rower, was a first semester law student at the University of Arizona. Her brother, Roman Reed, meanwhile, was a record-setting linebacker at Chabot College, a community college in Hayward, California.

Roman, on the cusp of breaking the state junior college record for tackles, had a game that day. And out on the field, everything changed. He wrapped up the opposing team's running back, bringing him down to add another tackle to his total. Then, another player landed on his neck, snapping it.

In the aftermath of Roman's injury, which left him paralyzed, Reed-Francois and her family faced "chaos and uncertainty," she said Feb. 20 in the football press room at Arizona Stadium, in her first public remarks as director of Arizona Athletics. "The University of Arizona extended a compassionate hand, providing support when I needed it the most. I am forever grateful."

"Now, during this challenging time," she continued, "it's my privilege and my duty to give back and help guide the athletic department forward."

Indeed, Reed-Francois, the first female athletic director in school history, returns to Tucson as Arizona Athletics confronts adversities all its own, including — at the time of the press conference — a multimillion dollar budget deficit, part of larger financial challenges at the university. Beside her on the press room podium, University of Arizona President Robert C. Robbins, who announced his resignation in April, noted that "this is a critical moment for Arizona Athletics. We need someone strong, someone with a national voice, someone with a track record of raising revenue, stewarding resources and providing strong financial oversight — someone unafraid to come in right now and help us."

Reed-Francois, he emphasized, provides "exactly what we need right now."



Formerly the director of athletics at the University of Missouri and UNLV, Reed-Francois becomes Arizona Athletics' ninth director, replacing Dave Heeke. At Missouri, Reed-Francois helped secure the school's largest-ever athletics donation, a \$62 million gift made in February. Under her leadership, Mizzou Athletics also turned in a budget surplus for the first time in six years, and the football team ended 2023 in the nation's top 10 despite a daunting SEC schedule.

A Mexican American and the daughter of an eighth-grade English teacher and a school secretary, Reed-Francois said at the press conference that sports have been at the center of her life since she was very young. "Athletics provided me an opportunity to compete, and it was OK," she said, noting more than once that her favorite part of the job is working with student-athletes. "You weren't judged because you were so competitive, in a negative way. You weren't told not to compete; you were encouraged. And I loved it."

Her return to campus also comes as Arizona Athletics prepares to join the Big 12 Conference next fall after 46 years in the Pac-12. Arizona currently competes in 22 varsity sports, a few more than average for a Big 12 program. But asked if she would consider cutting teams given the budget shortfall, Reed-Francois gave an emphatic "no."

"We're going to raise banners here. We're going to cut down more nets, folks," she said, referencing Arizona's 1997 men's basketball championship under former coach Lute Olson. "And while these are challenging times in collegiate athletics, you know what challenges bring: Challenges bring opportunities."

Reed-Francois' hiring comes alongside that of football coach Brent Brennan and the extension of current men's basketball coach Tommy Lloyd's contract. Robbins said that with the recent moves, "We are set for leadership, stability and momentum to continue to thrive," also citing women's basketball coach Adia Barnes, who led her team to the NCAA title game in 2021.

The new AD, who said that she is "looking for selfless, smart, hard workers" with "low ego" and "high output and energy," said that today's athletic directors are effectively "CEOs of a \$140 million company."

"And so we need to treat the enterprise like that. It's highly regulated. It's highly scrutinized. But it also has an altruistic purpose of higher education, and we need to make sure that we continue to tether athletics to the academy," she said.

Calling her choice to come here a "heart move" that "just felt right," she also said that she hopes that soon, her standing as a female AD won't prompt questions from reporters, because it will have been normalized. "I hope that my future granddaughter, when she is a successful CEO, that she is asked, 'What is it like to be a successful CEO?'" she said. "Not, 'What is it like to be a female CEO?'"

"Wildcat Nation," Reed-Francois said at the close of her prepared remarks, "please know I will work very hard every single day to make you proud." ♦





A DREAM COME TRUE

Q&A: Brent Brennan, Arizona football head coach

Nearly a quarter-century after he coached his final game in Tucson, the late Dick Tomey remains the standard for Arizona football as the winningest coach in program history. Brent Brennan was a member of Tomey's staff in that final season, an eager 26-year-old graduate assistant who was embarking on his own coaching journey. Now, following the Wildcats' best season since 2014, Brennan is back in Tucson and taking the reins of a program dear to his heart.

Brennan spoke with Sarah Kezele '11 about honoring Tomey's legacy, keeping a promising young team intact, and the importance of home-field advantage.

Q: Your coaching career has taken you all over the West Coast since you were on Arizona's staff in 2000. How does it feel to be back all these years later?

Oh, it feels incredible to be back. I've had the chance to meet and reconnect with a bunch of great

people who care about the U of A. It's a little bit surreal, too. As I walk down the Mall or I'm walking up to the [football] facility, I think, wow, this is amazing. My wife went to school here, and my brothers both went to school here, so I have always had a strong connection to the U of A. (Brennan's younger brother, Brad, played wide receiver for the Wildcats from 1996-2000.)

This has been a dream come true for me, and I mean that. I feel an incredible responsibility for this program right now and for our path and our process going forward.

Q: You spent several years under Dick Tomey's tutelage at Arizona and San José State and looked at him as your "football dad." What do you think he would think about you returning to this program?

I think he would think it's great. Coach is such a special guy to so many people, and that's one of the cool things about coming back here, is getting a chance

to work with some of those people who played for or coached with Coach Tomey. I've made sure that we have people connected to the U of A joining our staff. We have that feeling of pride and commitment to the U of A knowing that, for all of us, it started here with Coach Tomey. I'm sure he's smiling somewhere, watching me try to figure this out.

Q: When you think back to working under Tomey, are there any lessons that have stuck with you over the years?

He had so many one-liners. We refer to them as Tomey-isms. He always talked about "the team, the team, the team." But another one that lots of coaches remember: When your players made a mistake or were late for class or something, he had his way of turning the mirror back on you. He would say, "You're either coaching it or allowing it to happen." That one really stuck with me, because I do think it's true: Things that happen with your players — good or bad — are a direct result of what you're either coaching or allowing to happen. So, the longer I've been in coaching, that's been a fundamental thing for me.

Coach Tomey really is a part of my thought process every single day. He was a coach who really cared about his players, and I think that's never been more important than it is right now, given where young people are in terms of their

mental health and their exposure as Division I athletes. The world has so much more access to them than they did 20 years ago via social media, their phones, etc. So, his investment in the whole person is definitely where I start fundamentally as a coach, and that's a direct result of my time with him.

Q: When Jedd Fisch left Arizona for Washington, a lot of the fan base feared that the core of this team would transfer and the program would take a step back, but you've managed to keep the team intact. How did you do that?

Well, I didn't try to sell the players anything. I didn't try to pitch them anything. I just gave us some opportunities to get to know each other. They were really connected as a team, and I think that's what kept them here. It's the fact that they're really connected to each other, and they're really connected to the University of Arizona and Tucson. I think being a college football player here is really special, and I don't know that you get to feel that kind of support at every other program in America. The young men here chose to stay for each other, and that gives us a great foundation for a good football team.

Q: What is the signature of a Brent Brennan program?

When teams play us, they talk about how hard we play, and we have more fun playing football

than everybody else. That's a really important thing to me, because this game can get so outcome-driven that you can get lost in the journey. If you don't focus on the journey — you don't focus on the process — you're not going to like the outcome. So, trying to keep us in the right here and right now, and focused on just this moment, is what I want to help our team do.

Q: What is your message to the fans?

Just keep showing up. I think that's one of the things that can get lost in the comfort of our living room, where there's no traffic and everything's easy. Going to a college football game is a special event, and we only get six or seven of them at home a year. Home-field advantage matters in sports, and it really matters in football. We know that we're going to be playing on the road in some really tough environments, and we need the environment here in Arizona Stadium to be every bit as tough, if not tougher, than those places in the Big 12. I want us to make it hard on the people that come to play here. ♦





CLASS NOTES

KEEP UP WITH YOUR FELLOW WILDCATS

1960s

Dennis Winsten '60, age 85, is happy to report that he has no plans to retire from work and still enjoys running races and triathlons.

Butch Farabee '65, a retired National Park Service veteran of 35 years, released his sixth book, "Southern Arizona Search and Rescue History: 1901-2000," available online for free. He shares that the book is his gift to the region's highly dedicated and skilled first responders.

Carlos Reyes '65, a noted poet and translator, published his 16th volume of poetry, titled "The Empty Chairs of February."

Louis Pérez Jr. '66 published his book "Colonial Reckoning: Race and Revolution in Nineteenth Century Cuba" (Duke University Press). The book examines Cuba's wars for independence in the second half of the 19th century, with a focus on the loyalty to Spain among Black, white and creole Cubans. The author of numerous books, Louis is the J. Carlyle Sitterson Professor of History at the University of North Carolina, Chapel Hill.

Vandi Clark '67, an actress, recently appeared in Wes Anderson's "Asteroid City." She spent three weeks in Spain filming and is looking forward to her next project.

Cheryl Hogan '69 published "Catalan Cuisine," a cookbook featuring Mediterranean recipes from Spain's Catalonia region adapted to the West Coast of the United States. The dishes in Cheryl's book use natural foods and easy preparation methods.

1970s

David Hosley '71 published his first book, "My Life's Journey," available on Amazon. The autobiography depicts his time in the Air Force, where he retired at the rank of colonel. During his career, David held leadership roles with the U.S. Space Shuttle Program, the University of Central Florida, Embry-Riddle Aeronautical University and a private consulting business focusing on STEM programs. Now, he is affiliated with a startup space company awarded for its contributions to reducing climate contamination.

Kathy Krucker '71 has been inducted into Catalina High School's Hall of Fame for her outstanding performance as a student-athlete. At UArizona, Kathy was a member of the swim team and served as volleyball team captain, leading the team to state championships in 1970 and 1971. She went on to become a high school biology teacher, receiving the Christa McAuliffe Fellowship in 1995 and Arizona Science Teacher of the Year in 2001. Kathy also is an underwater photographer.

Rolly Kent '74 published a new collection of poems, titled "Phone Ringing in a Dark House" (Carnegie Mellon University Press). Learn more at rollykent.com.

Joy Johanson Petty '74 and **Paul Adair Petty '74** celebrated their 50th wedding anniversary in 2024. The couple married in 1974 while seniors at the School of Music. Paul retired after 47 years of service in the Army and was awarded the Army Civilian Superior Service Award as a senior analyst. Joy retired after 26 years as a school music teacher and served as president of the Fairfax County

General Music Educators Association. Joy still plays music, as a church organist, and is a church area music coordinator.

Ronald Benson '75 published a monograph for the Tucson Corral of the Westerners titled "Arizona's First Sheriff: Berry Hill De Armitt." The text focuses on De Armitt, who was appointed by Arizona Territorial Governor John Goodwin in April 1864.

Val Farmer '76 has had a successful career as a clinical psychologist specializing in rural mental health and family relationships, with 31 years of clinical work in North and South Dakota. For 28 years, Val also wrote a weekly column syndicated for publications throughout the Midwest. His work has brought attention to mental health impacts of the farm crisis of the 1980s and to financial stress in agriculture. Learn more about his work at www.valfarmer.com.

Isabel Barbara O'Hagin '76 '78 '81 '97 published her first picture book, "La Mariachi" (Sleeping Bear Press). She wrote the book under the pen name Isabel Estrada, and it is intended for children aged 4 to 8. Set in the 1970s, the story follows a young girl determined to be a mariachi. The book has received glowing reviews from Publishers Weekly, Kirkus Reviews and School Library Journal. Isabel is married to **Jeff Thoenes '85 '92**, who is in his sixth year as superintendent of Comstock Public Schools in Kalamazoo, Michigan. Recently, he co-authored the Michigan Association of School Boards journal article "Keys to Success: The Relationship Between Board President and Superintendent."

Stephen Reynolds '77 '81 has retired from his teaching position at Arizona State University after 32 years. He achieved the honor of President's Professor, ASU's highest award for teaching and scholarship. Stephen remains active, revising his four college textbooks, conducting research on Arizona's geology and consulting for private industry.

Bruce Cohen '78 was named Judge of the Year by the Maricopa County Bar Association at its annual Hall of Fame dinner in November 2023. Bruce practiced law for 24 years and has been serving as judge of the Maricopa County Superior Court since 2005. While at UArizona, he served as chairperson of ASUA concerts and co-produced the 1977 Fleetwood Mac concert at the football stadium, drawing 67,000 people and raising over \$500,000 for the American Heart Association.

1980s

Susan Lee '84 retired after 38 years as a librarian at the University of Providence in Great Falls, Montana.

Craig Dye '85 retired after teaching music for 34 years at Manassas City Public Schools in Manassas, Virginia. Craig spent most of his tenure teaching instrumental music, with an emphasis on band. However, he says the real enjoyment came from teaching elementary general music for K-4 students during his final years. Craig plans to continue performing, conducting and recording while spending time with his family and friends.

Wolfgang Golser '86 recently visited Bolivia, where he explored La Paz, Sucre, Potosí, Uyuni, several national parks and the salt flats. He noted the opportunities for hikes along a segment of the Inca Trail that lead to fossilized dinosaur tracks and geologic formations. Wolfgang found the lagoons, volcanic regions and columnar cacti of the altiplano fascinating. Additionally, he enjoyed the colorful sunsets over the salt flats as the rainy season began.

George Henderson '86 was appointed president of BeachFleischman PLLC, Arizona's largest locally owned public

accounting firm. Henderson joined BeachFleischman in 1991 as an audit professional. In addition to being a member of the American Society of Certified Public Accountants and the American Institute of Certified Public Accountants, he serves as treasurer for the Arizona Aerospace Foundation and president of the Verde Ranch homeowners association.

Rich Stichler '86 retired after teaching high school instrumental music in Georgia for 31 years. Currently, he serves as an adjunct professor of trombone and director of jazz bands at the University of Tennessee, Chattanooga.

Eric Halvorson '88, a third-generation Wildcat, retired at age 50 in 2017 and is living "the good life" in North Phoenix.

1990s

Scott Bellamy '92 was awarded the 2023 Samuel J. Heyman Service to America medal alongside Brian Key. They were honored for achieving a first-of-its-kind breakthrough in science, technology and the environment. The pair managed a NASA team that successfully altered the orbit of an asteroid, providing the first-ever test of a planetary defense strategy that could protect Earth from celestial threats.

Nicole Horseherder '93, who is Diné, was awarded the Heinz Award for the Environment, which annually recognizes a handful of outstanding individuals with a \$250,000 unrestricted cash award. Nicole is being recognized for her work fighting for Indigenous communities facing the environmental effects of decades of coal extraction. She is the co-founder and executive director of the nonprofit Tó Nizhóní Ání (TNA), which translates to "Sacred Water Speaks."

Timothy Schaffert '94 published a queer historical novel, "The Titanic Survivors Book Club" (Doubleday). The book tells the tale of the life-changing power of books and second chances, following a former Titanic librarian who opens a bookshop in Paris where he meets a secret society of survivors. Timothy has authored six novels and is founder of the Omaha Lit Fest.

Anna Marie Trester '96 published her book, "Employing Linguistics" (Bloomsbury Publishing), in 2022, and it has recently been included in Bloomsbury Collections, making it available to libraries with subscriptions. Anna Marie is the founder of Career Linguist, a blog and resource center for career exploration. Previously, she taught and directed a professionally oriented master's program in linguistics at Georgetown University.

2000s

Carolyn Hembree '01 published her third poetry collection, "For Today" (LSU Press). Carolyn is an associate professor in the MFA program at the University of New Orleans and was awarded the International Alumni Association Excellence in Teaching Award. She also serves as poetry editor of Bayou Magazine.

Karen Barton '02, who earned a doctorate in geography at UArizona, holds the record for receiving the most Fulbright awards of anyone in the country, with 10. She is currently a professor of geography at the University of Northern Colorado. She hosts her own podcast and recently published a book based on the largest shipwreck in African history, "Africa's Joola Shipwreck: Causes and Consequences of a Humanitarian Disaster" (Lexington Books).

William Broussard '02 '07 recently published his first book, "Public Regional University Fundraising: Under the Radar, Below the Fold" (Palgrave Macmillan). The book examines fundraising engagement and the role of university development professionals at public regional universities in the United States.

R. Dean Cloward '03 was selected by the U.S. Department of State for a two-week English language specialist project focusing on inclusive education in Indonesia. Dean's project is among approximately 240 supported annually by the English Language Specialist Program. He serves as a faculty member at Brigham Young University – Idaho.

Renu Liddell '03 received the Outstanding Top 50 Business Leader award from the Asian American Business Development Center. The awards gala took place in New York City in September 2023. Renu is the vice president of digital site merchandising at Target Corporation and resides in Minneapolis.

Rabia Ahmad '07 was recently promoted to partner at Helsell Fetterman LLP, a premier mid-sized law firm in the Pacific Northwest. Rabia joined the firm three years ago, working in its nationally ranked litigation and health care groups. With a strong medical background and a dedication to serving others, Rabia excels in connecting with and advocating for her health care clients. She has been recognized as a Rising Star by Super Lawyers and One to Watch by Best Lawyers.

Tami Shaw '07 recently joined the Francis Tuttle Technology Center as an organizational development trainer. Tami will partner with companies and organizations by offering training on topics including leadership, teams, strategy, communication and change management. She joins Tuttle from Edmond Public Schools, where she served as a professional development and learning specialist.

Rachel Smith '08 is among the Disney cast members leading Disney Conservation's sea turtle program, which helps sea turtles and other wildlife across the state of Florida. The program has recorded 2,500 sea turtle nests, almost double the average number of nests usually seen in one season. Rachel shared that her time at UArizona has led her to "one of the best jobs in the world."

Ezra Page '09 was promoted to Arizona group leader of pipeline utilities at Dibble. In his role, Ezra will oversee all Dibble's water, wastewater and infrastructure rehabilitation projects in Arizona, as well as its Arizona staff. With over 24 years of experience, he has managed more than 300 utility projects throughout the state.

2010s

Tyler McKee '10 has established a career in streaming, initially focusing on professional sports and recently transitioning to entertainment with Peacock. He joined the company before its national launch and was recently promoted to vice president of product, marketing and marketing technology. Tyler married a fellow Wildcat, and they have been together for 18 years. The couple has three children and a dog named Arizona.

Stephen Miller '10 published his first book, "Over the Seawall: Tsunamis, Cyclones, Drought and the Delusion of Controlling Nature" (Island Press). The book uncovers the stories behind climate "solutions" that tragically backfire. Stephen, an award-winning author and journalist, has contributed reporting and essays on climate change, conservation and agriculture to publications such as National Geographic, the Washington Post and Discover magazine.

Hannah Keogh Gates '14 earned her MBA from the Kellogg School of Management at Northwestern University. She now serves as the director of business development at NOVOS, a consumer longevity biotech startup focused on helping people live longer, healthier lives through science-based products. Hannah and her husband, Teddy, live in Chicago and welcomed their daughter, Beatrice "Bea," in March.

Heidi Pottinger '14 '17 is the founder and executive director of the nonprofit Child Health & Resilience Mastery, also known as CHARM. In 2023, CHARM held its annual Camp Druzy, in support of Southern Arizona families with children who are grieving a death or a separation from a close family member. On the fourth day of camp, CHARM partnered with Steady Strides Riding Center, an alumni-founded nonprofit. Heidi and other attendees showed their Wildcat pride by wearing UArizona gear.

Elvin Kibet '15 and her husband, Shadrack Kipchirchir, are featured in Johanna Garton's book, "All in Stride" (Rowman & Littlefield). The book

portrays the couples' determination to build their lives as new American citizens. Having grown up in rural Kenyan villages, they discovered a path to education and making a difference through the high-pressure world of distance running.

Stefano Maranzana '16 '18 and **Sandra Descourtis '17** met in the corridors of the French and Italian department. Stefano taught Italian while working on his doctorate in second language acquisition and teaching, and Sandra taught French while completing her master's in the language. After graduation, the two stayed together but worked in different states. Finally, in fall 2023, they reunited at Emory University in Atlanta, where they both serve as assistant teaching professors.

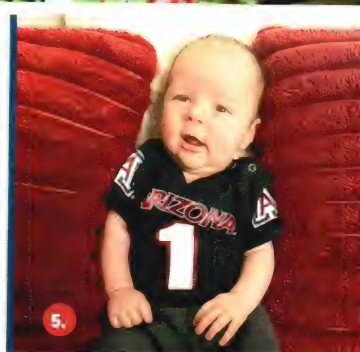
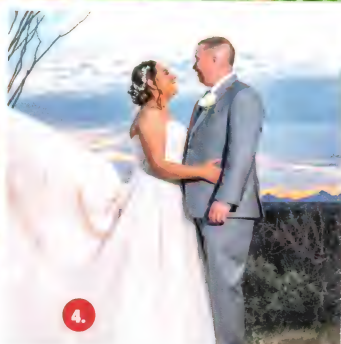
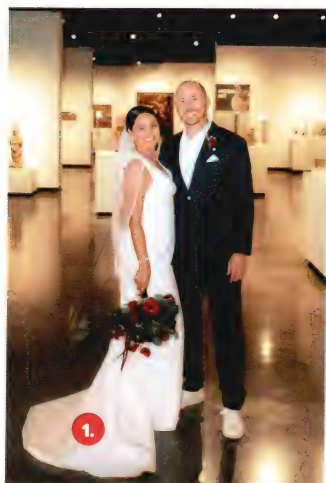
Mitchell Vargo '19 was listed in Forbes magazine's "30 under 30" for Cleveland. The 26-year-old is a partner at Forward Hospitality Group, which has six unique entertainment, bar and restaurant experiences across Cleveland. The company has opened concepts in Chicago, Miami and St. Petersburg, Florida.

2020s

Mary Newlyn '20 was named executive director of the West Virginia Hope in Action Alliance. She will participate in the 2023-24 class of the Appalachian Leadership Institute, a competitive leadership and economic development training opportunity for individuals in the Appalachian Regional Commission's 13 Appalachian states. The nine-month program is designed to create strong regional partnerships and foster solutions aimed at building a stronger future for the region.

Fiona Harrigan '21 was named a 2023 Robert Novak Journalism Fellowship recipient. Fiona's research, titled "Agreeable Asylum: Charting a More Productive U.S. Immigration Policy," will join that of the more than 150 young journalists who have participated in the program. Program alumni have become authors of best-selling books, Pulitzer Prize winners and leaders of national media outlets.

WEDDINGS AND FAMILIES



1. **Andy Townsend '99 '10** and **Natalie Newsome '10** were married at the Tucson Museum of Art Sept. 30, 2023. Most of the wedding party and guests were Wildcat alumni, with a few Sun Devils also in attendance.
2. **Antonio Torrez '03** and **Adriana Torrez** were married Sept. 1, 2023. They enjoyed an incredible honeymoon, traveling to seven countries. The pair sported UArizona gear in Dubai, Israel, Greece, Italy, Spain, France and the United Kingdom. They were happy to see UArizona recognized by people abroad.
3. **John Paskach '07** and **Laura Adeney** were married Sept. 26, 2023, in Red Rock Canyon, Nevada.
4. **Alejandrina Gonzalez '08** celebrated her marriage to **Leonard Ward Jr.** on March 11, 2023, at Saguaro Buttes.
5. **Lance Kokot '15** and **Leyla Kokot '16 '18** welcomed future Wildcat Bennett Michael Kokot Oct. 21, 2023.

FAREWELL, DEAR FRIENDS

Honoring Wildcats who have passed away

Bruce E. Hunt '47
Douglas Beecroft '49
Donna M. Peterkin '49
Lorraine F. Shroads '49
Jacqueline S. Holland '50
Ellen G. Beshaler '51
Willis H. Brimhall '51
James S. Tolley '51
Marcia M. Bents '52
George E. Eckert '52
Barry N. Freeman '52 '55
Mildred A. Gunby '52
Elizabeth Jacka '52
Ervin F. Johnston '52 '58
Robert E. Whalen '52 '58
Eva J. McDuff '53
Charles H. Hausenfleck '54
Shirley M. Kimmel '54
Mary Ann Olson '54
Jack E. Warneke '54 '58
Robert L. Bogner '55
Robert L. Parker '55
William A. Moodie '56
William Reeves '57
Barrie Ryan '57
James E. Sutton '57
Doris Smith-Harper '58
George D. Haville '58
Edward E. Betts '59
Bert C. Jones '59
William W. Lynch '59
Karen K. Purvis '59 '62
Gene C. Snow '60
Daniel H. Campbell '61
Roland J. Cesarini '61

David E. Chambers '61
Marianne L. Connell '61
Ronald A. Pedderson '61 '65
Corinne L. Smith '61
Robert J. Wong '61
Peter T. Filiatrault '62
Ronald B. McAlpin '62
Rosalind H. McElvain '62
Patrick J. West '62 '63
John J. Glancy '63 '66
Barbara L. Harris '63
John S. Thorup '63
Johnny M. Vergis '63
William A. Allen '64
Reginald E. Barr '64 '72
Margaret J. Barrales '64
George E. Reeves '64
Susan S. Russell '64
Kathi N. Skytta '64
David G. Areghini '65
Helen F. Forbes '65
Henry F. Mayland '65
Bruce L. Hansen '66
Patricia A. Cretcher '67 '72
Harry W. Edwards '67
David H. Harris '67
Shelby D. Silverman '67
David K. Taylor '67 '76
Michael A. Beale '68
Father A.L. Bud Brooks '68
Richard L. Humphrey '68
Frank M. Casanova '69
Sammy E. Felker '69
Dora J. Greer '69 '84
Kermit L. Harrison '69

James V. Stoffa '69
Robert C. Swan '69 '72
Robert D. Astleford '70
John H. Chiappetta '70
Albert L. Guidero '70 '74
Elizabeth Y. Layton '70
Lyle F. Murphy '70
Thomas A. Palmer '70
Miriam Richard Soisson '70
Dean C. Christoffel '71 '74
Gustavo O. De Leon '71
David A. Ferg '71
Alan T. Sagen '71
Vicki S. Sheley '71
Kathryn I. Starcher '71
Frances G. Stewart '71
Edwin Ullmer '71 '75
John W. Escott '72
Claud W. Seal '72
Laura J. Velez '72
Marlin E. Widger '72
John A. Beacco '73
John G. Benikosky '73
David P. Myers '73
Gary J. Wiltcheck '73
David Bono '74
Don P. McGriff '74
Edwin K. Parks '75 '78
Carol F. Wade '75
Robert P. Yarmola '75 '76
Stanley B. Allen '76 '81
Barbara J. Logen '76
Craig A. Owens '76
Lela K. Freiman '77
Sharon K. Kahn '77

Michael S. Rubin '77
Charles W. Taylor '77
Sylvia E. Watson '77
Brian A. Koenig '78
Barbara B. Norpoth '78
Stuart W. Faxon '79
John R. Hoopes '79
Robert G. Sadorf '79
Rose A. Nehring '80
Gonzalo M. Romero '81
Richard G. Barry '82
Linda K. De Castro '82
Kathryn A. Steinke '82
Lynda F. Carroll '83
Kay C. Bigelow '85 '88
Evelyn J. Lieberman '85
Jeannette I. Narvaez '85
Phillip W. Cameron '87
Mark Weinstein '87 '90
Lauren P. Fowler '88
Carole V. Good '88
Robert A. Cloud '95
Michael V. Goldman '96
Alan B. Yeoman '96
Charlotte L. Nielson '97
Thomas E. Dille '98
Nancy E. Dewey '00
Anita L. Harold '00
Erik E. Cruz '02
Malcolm L. Little Jr. '02
David Tennent '03
Rick L. Schisler '07
Scott A. Reyes '08 '17
Jason W. Perrin '16

Alumni *of the Year Awards*

The University of Arizona celebrated the accomplishments of its Alumni of the Year award recipients in February. This year's award recipients include a renowned neuroscientist; a lawyer who has advocated for people injured in mass shootings; business owners, entrepreneurs and advocates in the fields of architecture, technology, medicine, pharmacy, optics and education; an internationally known artist working in public spaces; medical professionals who have dedicated their lives to health services and education; and a passionate advocate for health equity for underserved populations.



Alumni of the Year awardees
Photos: Chris Richards

**August Benzien '96
and Gina Benzien '99
College of Architecture, Planning
and Landscape Architecture**

August's innovative mindset, cultivated in landscape architecture, birthed the iconic DuFFS Gambler skate shoe, and he now is the Nike Sportswear senior creative director for men's footwear design. Gina, founder of Benzien Design, has earned acclaim for her work in residential design — notably the Fairy Garden in Escondido, California. The couple share a commitment to giving back through the Benzien Family Travel Scholarship, which supports the next generation of designers.

**Kevin R. Boyle '97
James E. Rogers College of Law**

Boyle is a lawyer who specializes in resolving large, high-profile cases across the country, including wrongful death, catastrophic personal injury and serious fraud. Among his notable cases, he served as co-lead counsel representing survivors and the family members of victims of the 2017 mass shooting

at the Mandalay Bay resort in Las Vegas, helping secure an \$800 million settlement. In 2020, Boyle made a \$1 million gift commitment toward the College of Law's initiative to create state-of-the-art courtroom facilities for students to practice their skills as advocates.

**Roberta Diaz Brinton '79 '81 '84
College of Science**

Brinton, one of the university's most distinguished research leaders, is a Regents Professor of pharmacology, neurology, psychology, neuroscience, and pharmacology and toxicology. Her research on Alzheimer's disease has led to critical insights into the causes of the disease as well as cutting-edge therapeutics to treat it. She is the director of the Center for Innovation in Brain Science and holds appointments in the Evelyn F. McKnight Brain Institute, the Neuroscience Graduate Interdisciplinary Program, the BIO5 Institute and Clinical Translational Sciences.

**Ronald Butler '91
Eller College of Management**

Butler, a first-generation college graduate from the small mining town of San Manuel, Arizona, is the managing partner of Ernst & Young's Phoenix office, a role he has held for 15 years, as well as the lead for services related to the mining sector. He is on the boards of directors of the Greater Phoenix Economic Council, the Southern Arizona Leadership Council and Education Forward Arizona. In 2004, Butler started the Business Career Awareness Program at Eller to introduce minority high school students to accounting and the business world.

**Karen R. Conde Kenney '79
College of Agriculture, Life and
Environmental Sciences**

In 2003, after a 25-year career in the corporate world, Conde founded Conde Group Inc., a leading woman-owned technical recruitment firm. Conde Group builds world-class technical teams for clients such as Facebook, Toyota, Airbnb and PayPal, and it



Jeffrey Schatzberg
and Ronald Butler



UArizona Foundation
President and CEO
John-Paul Roczniak
speaks at the podium.

quickly earned recognition for its fast growth. In 2022, Conde made a gift to establish a scholarship endowment that honors her parents, supports veterans and active-military students, and encourages women to pursue leadership roles within professional and service careers.

Carol Dorsey '75
College of Social and Behavioral Sciences

After earning a bachelor's in political science, Dorsey became involved in regional politics, working at the Pima Association of Governments and serving on the City of Tucson land use planning committee. She also chaired the campaign to elect David Yetman, an award-winning PBS host, to the Pima County Board of Supervisors. In the 1980s, Dorsey moved to Mississippi, where she partnered

with the University of Mississippi, her local public school district and a Dallas private school to identify and provide remediation for public school students with dyslexia and other learning differences.

Zoe Draelos '79 '83
College of Engineering and the College of Medicine – Tucson

Following medical school, Draelos founded Dermatology Consulting Services to perform research around dermatological care and procedures. Since then, she has been the principal investigator on over 750 studies and the primary investigator for over 300, working with pharmaceutical and cosmetic companies from Aveda to Colgate to Pfizer while publishing 574 papers. In partnership with UArizona Women in Science and Engineering and Women in Medical

Sciences, Draelos has presented often to young women about careers in STEM.

Christopher Goettl '12
College of Medicine – Phoenix

Goettl is a board-certified interventional radiologist who performs a variety of cutting-edge, minimally invasive image-guided procedures, with a special interest in treating liver cancer and complex vascular diseases. Since 2018, he has worked as an interventional radiologist at Banner University Medical Center in Phoenix and as a clinical assistant professor at the College of Medicine – Phoenix. He also works as a physician consultant, teaching physicians around the country about specialized procedures.

Barbara Grygutis '68 '71
College of Fine Arts

During her celebrated career as a public artist, Grygutis has been commissioned to create over 75 large-scale works throughout North America and internationally, in settings including sculpture gardens, public plazas, gateways, memorials and monuments. She also has exhibited sculptures at venues like the Smithsonian Institution, the Bronx Museum and the White House. The public spaces created by Grygutis enhance the built environment, encourage civic interaction and reveal unspoken relationships between nature and humanity.

Jonathan Katz '81
College of Education

In 1987, realizing that there was a need for more interesting and better-quality materials for teachers, Katz opened Jonathan's Educational Resources with a goal of directly impacting students and teachers in Arizona. For 36 years, Katz's store has been the go-to source for Tucson's teachers, schools and families to find innovative materials to enhance classrooms and create learning spaces at home. Katz has always championed giving back to the educational community, offering professional development, parent engagement and curriculum support workshops.

John Musil '94
R. Ken Coit College of Pharmacy

Just two years after completing his Doctor of Pharmacy degree in 1994, Musil founded Avella Specialty Pharmacy in Scottsdale to supply specialty drugs that treat rare health conditions. Avella became one of the fastest-growing companies in the country, filling 50,000 specialty prescriptions each month by the time it was purchased by a subsidiary of UnitedHealth Group in 2018. In 2021, Musil was inducted into the Arizona Pharmacy Association Hall of Fame.

Linda "Mac" Perlich '75 '80
College of Nursing

Perlich, known as Mac, began her career at Pima County Hospital and then, while studying for her master's, transitioned to Amphitheater High School — where, as the school's first nurse, she set up educational programs and ran various clinics. Next, she joined the faculty of the College of Nursing, teaching first medical/surgical nursing and then community health nursing. Perlich is the co-founder of Act One, which takes students from Title One schools to arts performances, and coordinates the Culture Pass Program in public libraries across Arizona.

Mary Roary '08
Mel and Enid Zuckerman College of Public Health

A public health epidemiologist, Roary serves as the chief equity officer in the Office of Behavioral Health Equity, part of the U.S. Department of Health and Human Services — Substance Abuse and Mental Health Services Administration. She works with a variety of organizations to expand access to mental health services in minority communities and to promote a healthy mindset around receiving mental health support. Roary also manages the National Network to Eliminate Disparities program that provides mental health and substance use services for community-based organizations.

Kent B. Rochford '88 '90
James C. Wyant College of Optical Sciences

Rochford serves as the chief executive officer for SPIE, the international society for optics and photonics, where he drives the society's mission to advance emerging technologies through interdisciplinary information exchange, continuing education, publications, and career and professional growth. In 2019, with Rochford's leadership, the

society funded the SPIE Endowed Chair in Optical Sciences at the James C. Wyant College of Optical Sciences as part of its commitment to supporting its stakeholder education community.

Ross E. Schwartzberg '85 '90
College of Humanities

Schwartzberg is a diagnostic radiology specialist, an expert in prostate cancer diagnosis and treatment, and a generous supporter and friend of the College of Humanities. His patient-oriented approach and unwavering commitment to advancing medical practices have earned him widespread respect within the medical community. Schwartzberg and his wife, Jacqueline Chang, created the Fred & Barbara Borge Endowed Fund for Religious Studies at the College of Humanities to foster understanding of religious traditions and their impact on health and medicine.

Mindy '01 and
Mark Zeitzer '98 '02
W.A. Franke Honors College

Mindy Zeitzer, an assistant professor of nursing and director of the traditional bachelor's in nursing at Linfield University, has been a nurse for 23 years, working clinically with patients and their families, primarily in cardiothoracic and surgical-trauma critical care. Mark Zeitzer is a practicing emergency physician and the chief medical officer of ZoomCare — an urgent, primary, emergency and specialty care clinic with over 50 locations in Oregon and Washington. The couple's volunteer efforts center on the Jewish community in Portland, Oregon.

Read the full bios here: alumni.arizona.edu/2024-alumni-year. ♦

Keshad Johnson lays in 2 points while teammate Motiejus Krivas looks on vs. Dayton in the NCAA Tournament. Photo: Mike Christy



LIGHTS OUT

Arizona men's basketball posts another strong season under Tommy Lloyd, reaching the Sweet 16. | By Matthew Morris

Congratulations to the Arizona men's basketball team, whose 2023-24 season culminated in the program's second Sweet 16 berth in three years under head coach Tommy Lloyd. The Wildcats posted a 27-9 record, claiming the program's 18th Pac-12 regular-season title in their final season in the conference. The team proved especially capable at McKale Memorial Center, where they lost only twice in 17 games.

Senior guard Caleb Love — who transferred from North Carolina before the season began — earned Pac-12 Player of the Year and third-team Associated Press All-America honors after averaging 18.1 points, 4.7 rebounds and 3.4 assists per game, while redshirt senior center Oumar Ballo joined him on the all-conference first team. Showcasing Arizona's depth, senior guard Pelle Larsson made second team all-

conference, and guard KJ Lewis earned honorable mention all-freshman team recognition.

The Wildcats edged then-No. 2 Duke at Cameron Indoor Stadium on Nov. 10, 2023, setting the stage for a high-flying campaign. The team topped the national rankings for two weeks in December and entered the NCAA Tournament at No. 9 in the AP and Coaches polls, good enough for a No. 2 seed in the West Region. In Salt Lake City, Arizona downed 15th-seeded Long Beach State and seventh-seeded Dayton. The team fell a round later in Los Angeles with a 77-72 loss to sixth-seeded Clemson.

The program, under Lloyd's leadership, continues to seek its second national championship and first since 1997 under former coach Lute Olson. Lloyd has 88 wins at Arizona, one shy of the record for an NCAA Division I coach in their first three seasons. ♦

In Memory

James C. Wyant

1943-2023

Professor, dean, business leader and philanthropist — through all these roles, James C. Wyant had a deep and lasting impact on the Tucson community, the University of Arizona and the field of optical sciences.

Jim Wyant was the founding dean and namesake of the James C. Wyant College of Optical Sciences, and his commitment to the success of the college and to the field of optics was nothing short of astonishing. Over the years, the Wyant family gave more than \$32 million in support of optical sciences faculty and students. Jim's legacy will ensure the college's success for generations to come.

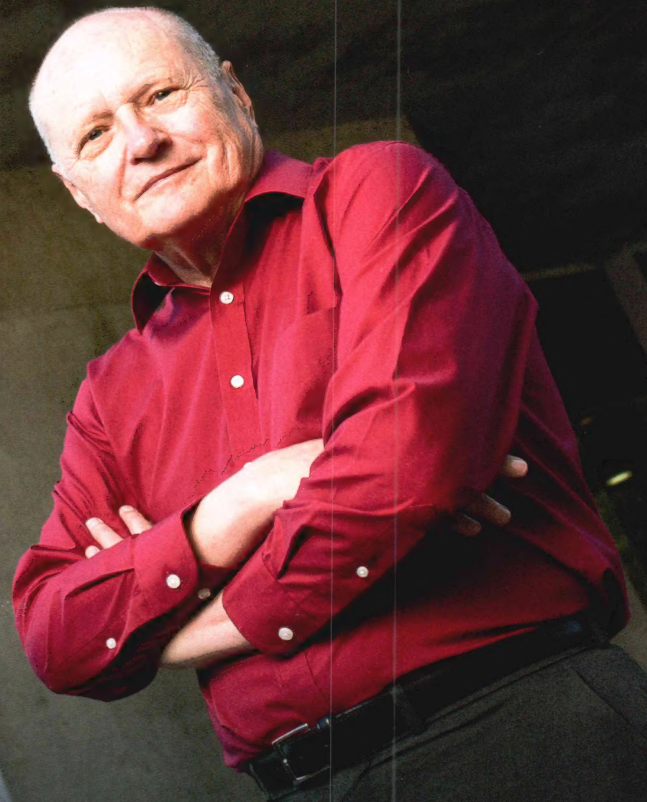


Photo: Jacob Chinn



THE UNIVERSITY
OF ARIZONA

1111 N. Cherry Ave.
P.O. Box 21019
Tucson, AZ 85721-0109

NON PROFIT ORG
U.S. POSTAGE
PAID

14



Photos: Chris Richards



COME HOME

Celebrate with alumni and friends during Homecoming week, Oct. 13-19, 2024. Explore everything we have planned for Wildcat alumni, students and friends at Homecoming 2024 celebrations. Arizona football will play Colorado on Saturday, Oct. 19. Learn more: alumni.arizona.edu/homecoming